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ABSTRACT

The goals of this practicum were to encourage parents to assess their use of over-the-counter drugs as a behavior model for children and to increase parental knowledge about over-the-counter drugs. Parents attended three "activity lectures," that is, lectures that included group activities and discussion. Before the activity lectures, parents were given reading materials and before and after the lectures, parents were tested on their knowledge of proprietary drugs. After the lectures, parents' written paragraphs revealed an increase in their awareness of the influence of modeled drug use behavior on children. Appendices include 32 references, assessment measures, and related materials. (GLR)

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Increasing Awareness of Parental use of Over-the-Counter Drugs as a Behavior Model for Preschool Children through Activity Lectures and Discussion

by

Ava Craig-Waite

Cluster 33

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A Practicum I Report presented to the Ed.D. Program in Early and Middle Childhood in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

NOVA University

1991

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PRACTICUM APPROVAL SHEET

This practicum took place as described.

Verifier: Vicky J. Fong, Ed. D.
Dr. Vicky J. Fong

Dean, Behavioral & Social Sciences Division

Sacramento, California

February 12, 1991
Date

This practicum report was submitted by Ava Craig-Waite under the direction of the adviser listed below. It was submitted to the Ed.D. Program in Early and Middle Childhood and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University.

Approved

Mar. 20, 1991
Date

June L. Delano
Dr. June Delano, Ph.D., Adviser

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Abstract

Increasing Awareness of Parental Use of Over-the-Counter Drugs as a Behavior Model for Preschool Children through Activity Lectures and Discussion.
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Descriptors: Early Childhood/Parenting/Substance Abuse Early Childhood/Kindergarten/Preschool/Education/Teaching

This practicum was designed to increase parental awareness concerning the use of over-the-counter drug products as a behavior model for children. The goals were to encourage parents to assess their use of these products and how that use may serve as a behavior model for children, and to increase parental awareness of their knowledge with respect to some of these non-prescription medicines.

The writer developed, implemented and evaluated a series of three programs focusing on the effects of parental modeling on children's behavior; and completed a series of three activity lectures that increased parental knowledge of over-the-counter drugs.

The results indicated that the activity lectures were influential in changing some knowledge and attitudes about over-the-counter products. In addition, written parental responses on how he/she thinks his/her behavior may serve as a model for his/her child(ren) revealed an increase in awareness of the influence of these modeled behaviors.

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CHAPTER I

INTRODUCTION

Description of Work Setting and Community

The college is located in a somewhat metropolitan area that lies between two mountain ranges. According to Mims and Mims (1981), this valley was created by a glacier that etched a huge gorge between these two mountain ranges and is located at the "confluence of two rivers" (p. 1). Because of the available water and suitable climate conditions, the entire area is well known for its agricultural products.

According to the 1989 census figures, the population is 1,363,000, including 75% White, 8% African American, 10% Hispanic and 8% Asian and other. The median age is 31.8 years. Annual family income averages $31,900 with a household income of $23,800. Eight and one-half percent of the population has an income below the poverty level.

The unemployment rate in the area was 5.7% at the time of the last census; however, it has dropped to about 5 percent since that data was collected. Occupational opportunities are varied in the community; however, a preponderance of individuals are employed in state or federal agencies.

In the immediate and surrounding geographical area, there are several institutions of higher learning. There are four community colleges and three fully accredited universities. There are 16 school districts comprising 177 elementary schools, 6 junior high schools, 29 intermediate schools and 28 high schools. In addition, there are 83 private and parochial schools and 70 industrial, technical and trade schools. Fifty-eight percent of the population are high school graduates and 27 percent have completed four years of college.

This community college endorses an "Open Door Policy"; all those interested may apply regardless of previous educational preparation. Additionally, the college prides itself in the cultural diversity of the community it serves. As of 1989, there were 56% White, 12% African American, 17.5% Asian, 12.7% Hispanic and 2.1% Native American. The female students comprise 56.9% of total enrollment; the male population is 43.1%. During 1988-89, the college continued its three-year growth trend and reached an all-time enrollment high of 17,388 unduplicated students. The outreach locations grew even more dramatically, and initial plans for a satellite facility on a nearby university campus, significantly enhance future potential.

The mission of this educational institution is to provide opportunities for critical thinking, vocational training, social development and aesthetic experiences. The

college is also responsive to the needs of the community. To implement philosophical commitments, it provides: opportunities for student development, guidance and counseling, general education courses, technical-vocational courses and programs; basic skills education, and transfer education. The college also offers many of its credit courses at community outreach locations. This service allows students to complete many general educational courses that are major requirements for an Associate of Arts Degree or for transfer to a four-year school. On request, the Office of Community Education, in cooperation with the Institute of Business, Government and Industry, will arrange credit contract classes for local business and professional organizations. Community service classes provide short-term, cost-covering, and non-credit classes in a variety of topics, including a special Senior Collegian Program for adults over 55 years of age. Professional continuing education courses are available for dental assistants and hygienists, public accountants and nurses. In addition, professional development classes for engineers and architects are available in computer-aided design.

Writer's Role and Responsibility

The writer has taught in the District for 15 years with primary teaching responsibilities in the area of Family and Consumer Science (FCS) and Early Childhood Education

(ECE). In addition to full-time teaching responsibilities, she is currently the department spokesperson for the ECE/FCS Department.

The Family and Consumer Science Program provides for completion of all lower division courses required to obtain a home economics degree at a four-year institution. In addition, several courses within the program fulfill partial requirements for attaining an Associate of Arts Degree. The author's teaching responsibilities include basic nutrition and child development. Both of these courses may be used for the Associate of Arts Degree or for lower division prerequisites required by four-year institutions which offer a degree in home economics.

The Early Childhood Education Program offers an Associate of Arts Degree and/or a Certificate of Achievement, which prepares students for employment in child development programs, public and private preschools and childrens' centers. The program meets the course requirements for teachers and directors in private child development centers, licensed by the state, and the children's center instructional permit, issued by the teacher credentialing commission, for teachers in public preschools and childrens'centers. The infant care and school-age option provides more focused training for those

wishing to work with special age groups. The writer teachers child development, which is required for all of the above options.

CHAPTER II

STUDY OF THE PROBLEM

Problem Description

This practicum addressed the issue of parental use of over-the-counter drug products as a behavior model for children. Over-the-counter drug use as a part of self-care has been increasing in popularity in American society. These non-prescription medicines are frequently used by parents without adequate knowledge about the physical effects and how parental use may serve as a behavior model for children. The discrepancy exists between the actual use of proprietary products and the appropriate information available to parents that would enable them to make more appropriate decisions about the use of these substances and provide a positive model for children's developing attitudes and beliefs concerning proprietary drugs.

The use of over-the-counter (OTC) products as a route of self-care has been investigated by a number of researchers. Esmay and Wertheimer (1979) have stated that individuals will continue to be interested in self-medication as opposed to seeking medical advise from registered professionals. These authors report that "two-thirds to three-quarters of all ailments are self-managed by

the individual and the family without seeking professional medical advice" (p. 54). In support of OTC use, Knapp and Knapp (1972) conducted a survey of 278 households and found that "60 percent of illness reported in a 30-week period were dealt with using proprietary drugs and no physician contact" (p. 28).

While the use of OTC drugs as a means of self-care is an acceptable part of American society, there is evidence that self-medication has increased and has, to a large degree, replaced the reliance on licensed physicians for diagnosis and prescription. This change, as noted by Coons and McGhan (1988), is due to recent technological developments that have forced changes in the ways and means of health-care delivery. They state that this change "draws attention to the need for individuals to take more responsibility for their own health care and health maintenance" (p. 175). With this increased responsibility, knowledge of appropriate methods of self-medication is imperative.

With respect to knowledge about the myriad of proprietary products available for self-medication, a number of researchers have reported that individuals may not be adequately informed about the appropriate use and possible adverse effects of these substances. It has been reported that individuals who use over-the-counter drugs are often unable to define and/or recognize terminology and directions

for their use. In addition, these consumers often lack the knowledge of the effects of some of these products. (Krupka and Vener, 1987 and Shands, Goff and Goff, 1983). The inability to read and understand product labels, combined with inadequate knowledge of the effects of these substances, place consumers, who choose to self-medicate, at health risk.

Concerning the availability of knowledge about drugs used to self-medicate, Krupka and Vener (1987) state that "reliable information regarding the efficacy of the plethora of available drugs is crucial to consumer self-medication" (p. 129). The most often mentioned sources of information are television, magazines, newspapers, books, radio, family and friends. If these are the major sources of drug information, it is essential that the information gained via these sources be reliable.

The accuracy of information gained through the above-mentioned sources is questionable. In their study of young adult consumers' knowledge of some commonly used substances, Krupka and Vener (1987) found that less than two percent of the respondents were able to correctly answer 90 percent or more of the questions asked and less than 18 percent were able to answer 80 percent of the questions correctly.

One source of knowledge concerning non-prescription medications that is controversial is that of media promotion of over-the-counter drugs. It is stated by Esmay and

Wertheimer (1979) that, "clearly, consumers, regardless of their drug and advertising attitudes, rely heavily on the media for information" (p. 56). While some might consider children to be the most vulnerable to media advertising, it has been found that a large number of adults agree with the following statement: "Most of the things advertisements say about medicines and health advertisements must be true, or they wouldn't be allowed to say them" (Esmay and Wertheimer, 1979, p. 58).

Evidence of non-prescription medication use, often without adequate knowledge concerning these products, presents a societal issue that may impact on individuals and families within the society. Since information from family members is often cited as a source of information about proprietary drugs, there has been expressed concern regarding the influence of adult's knowledge and practices on the developing attitudes of children relative to the use of over-the-counter products. As noted by Shands, et al. (1983), "Society places few moral or ethical restrictions on their use; use is often taught by example in the home" (p. 423). In agreement is Esmay and Wertheimer (1979) who discuss the drug behavior model presented by parents. They quote the work of Blum (1969), who determined that "parents play a significant role in introducing their children to non-prescription drugs" (p. 56). Further evidence of the role of parents is discussed by Lewis and Lewis (1974), who

discovered that when "the parents used a particular product, 71 percent of their children also used the product" (p. 432).

With respect to society as models for behavior, Erik Erikson emphasizes the role of society in psychological development. "The human being", says Erikson, "at all times, from the first kick in utero to the last breath, is organized into groupings of geographic and historical coherence: family, class, community, nation". (Fischer and Lazerson, 1984, p. 398) Children learn social values and participate in social institutions as an intrinsic part of their development. The developmental course of children growing up in a society that values the use of drugs as a primary route of self-care will be very different from that of children in a society that values other means of maintaining health.

The goal of parenting is to help children develop into independent, autonomous, responsible and self-directed adults. All parenting strategies emphasize that parents should provide models of the characteristics they want their children to develop. As stated by Brooks (1987), "children living in families in which everyone eats healthy food and participates in regular exercise are likely to adopt healthy habits as they grow up" (p. 36)

Evidence of parents as powerful models for children involves observation that children often imitate adult roles

and responsibilities through their play. As noted by many in the field of child development, play serves as a means of learning about how adults function in the society within which children develop. If one spends time observing, it will be evident that, particularly during the preschool years, children's play often includes sociodramatic play in which the children practice roles of mothers, fathers, teachers and other familiar models they observe in their environment.

With respect to learning about maintaining health, it seems apparent that children will observe, learn and practice methods for maintaining health based on what they see in adult models. Esmay and Wertheimer (1979) refer to parents as models and state that "parents provide a drug behavior model which influences children to a great extent" (p. 56).

Social learning theorists propose that most of a child's learning comes from his/her actively imitating or modeling what he sees and hears other people say and do. Thomas (1985) cites the work of Albert Bandura who says that "the child adds to his repertoire of actions by seeing or hearing someone else perform the behavior rather than by overtly carrying out the behavior himself" (p. 400). Individuals who have observed children would not consider modeling to be a controversial issue. Parents, teachers, coaches and police commonly use principles of modeling to

instruct children in new learning experiences. More controversial is the concept of incidental learning whereby children may learn a behavior but may not immediately act out the behavior. In contrast to traditional learning theory, Bandura's theory accounts for learning behaviors from models, storing the information in memory and, acting out that behavior at an appropriate time. It would seem, therefore, that children who observe individuals in their environment using proprietary substances may not act out that behavior until a later time; a time when the behavior is appropriate for fulfilling their needs. Bandura (1977) also discusses how novel behavior may be acquired. He states that "when exposed to diverse models...observers combine aspects of various models into new amalgams that differ from the individual sources" (Thomas, 1985, p. 48). The child developing in a society where various adults model drug-taking behaviors will have many opportunities to observe this behavior and perhaps, at some future time, use that learning when making decisions about their own self-care.

If parents provide a role model for children's developing attitudes and values about the appropriate use of drugs as a part of self-care, they must be informed about the impact of their drug-taking behavior on the child and must be better informed as to the positive and negative

effects of these products. According to Vener, Krupka and Climo (1982), OTC drug use as a part of socialization has not been adequately studied.

Problem Documentation

There is ample documentation that supports the increased use of over-the-counter drugs as a vehicle for self-care. (Coons and McGhan, 1988; Esmay and Wertheimer, 1979; Food and Drug Administration/Proprietary Association, 1988; Kroenke, 1985; Krupka and Vener, 1987; Montagne, 1988; Pascale and Sylvester, 1988; Rylance, Woods and Cullen, 1988; Shands, et al., 1983 and Vener and Krupka, 1986)

In addition to use, there is available evidence that consumers may lack adequate knowledge concerning the selection and possible hazards associated with the use of these products. (Krupka and Vener, 1987; Krupka, Vener and Climo, 1982 and Shands, et al., 1983).

Since parents comprise a significant portion of consumers of these products, there is concern that their use may provide a drug-taking behavior model for their children. As individuals assume more responsibility for self-care and since self-medication is an integral part of self-care, there is concern that the behavior model for children may not be entirely positive.

The author has taught courses in child development, parenting, nutrition and substance abuse. With reference to

child development, it has been apparent that students are often unaware of how their behavior serves as a model for children's developing attitudes and values as well as behavior. Nutrition students have demonstrated inadequate knowledge concerning the safety, effectiveness and benefit of a variety of nutritional products available on the market. Further support for inadequate knowledge of proprietary drugs was demonstrated by students enrolled in a substance abuse course that was co-taught by this author. Questions about nutritional substances and other proprietary drugs have focused on the safety and effectiveness of the product. Most often asked are questions that pertain to drugs that offer pain relief, reduce colds and coughs, provide nutritional benefits beyond normal food, serve as antacids, aid in weight loss, provide extra dietary fiber, give extra energy, assist in sleep and help maintain alertness.

To establish evidence that there was a problem within the author's local setting, a Medication Survey (Appendix A) was developed and distributed to 250 students who were enrolled in a child development course. Of the 250 students, 223 reported being parents. Since the writer was primarily interested in parental use, the surveys from non-parents were excluded.

The first component of the survey queried how often some commonly available over-the-counter drugs were used.

The responses were categorized by age and frequency of use. Results showed that there was frequent reported use of all categories of substances but there were differences in use reported between age groups. Parents who were under age 20 demonstrated more frequent use of weight-control aids and nutritional supplements. Parents in the 30-39 age category reported more frequent use of cough suppressants, antacids, nutritional supplements and sleep aids. In the oldest age group, the drugs most frequently used were sleep aids, nutritional supplements and antacids. Although the frequency of use varied by age and drug category, the survey did demonstrate that one or more of these products were used by the respondents. (See Appendix B)

The second part of the survey contained some questions pertaining to specific knowledge about the effects of some over-the-counter products and asked for opinions regarding attitudes concerning the advertising, availability and general use of proprietary medicines. The results of this part are presented in Appendix C. Questions about the benefits of vitamins and minerals, and who should use these products, were incorrectly answered by a majority of the respondents. These results agree with Krupka and Vener (1987) who state that consumers often lack knowledge of specific over-the-counter drugs.

A question was asked concerning whether the American public should have more types of proprietary medicines. The

responses were affirmative. This finding supports the previously stated interest in self-medication as a part of self-care. The question about whether an individual should see a doctor before taking a non-prescription product was answered in the negative by the majority of the respondents. This finding is also supported by the literature indicating that consumers may choose self-medication before consulting with a physician. Responses to whether advertising generally gives truthful information about the advertised product were mixed.

The results of the survey (Appendix B) demonstrated that there was considerable use of over-the-counter products. In addition, the results of the knowledge portion of the survey revealed that a majority of students held erroneous concepts about the appropriate use of some of these substances. (See Appendix C).

Causative Analysis

One cause of the problem involves the availability of a myriad of over-the-counter products. It has been estimated that there are about 300,000 of these products available for sale. (Krupka and Vener, 1987). The Food and Drug Administration (FDA) admits that the number of over-the-counter drugs available can range from 100,000 to 500,000 manufactured or marketed by more than 12,000 firms. (Esmay and Wertheimer, 1979).

Another cause cited in the literature is the social acceptability of proprietary drugs in American society. According to Montagne (1988), the "foundations for decisions regarding the giving and taking of drugs is based upon the philosophies of life of those involved in the given decision" (p. 139). Montagne discusses the symbolic nature of drug giving and drug taking and states that a "drug's reputation, created through the use of symbols, images or metaphors, is instrumental in people's determination to use the substance and in providing meaning and understanding of the effects they experience with it" (p. 143). The actual taking of a drug becomes a social phenomenon with defined interactions between the self, others and society. One metaphor cited by Montagne is "drug is remedy". Since this metaphor is accepted in American society, its acceptance can account, in part, for the prevailing attitude that taking drugs is a primary vehicle for self-care. With reference to children, "the influences of images for drugs and medicines will exert itself even at an early age, since children obtain their information from parents, friends, school textbooks and curriculum guides" (Smith and Smith, p. 215).

Relationship of Problem to the Literature

Kaplan (1985) discusses the social evaluations of drug use as it impacts the use of that particular drug. This social evaluation of drug use behavior influences the

individuals' "motivation to engage in the behavior, the acting out of the need to engage in the behavior, and change in the person's level of involvement in the behavior" (p. 480). Therefore, if the social group deems the drug acceptable, the individual, who is motivated to respond to social acceptability, will determine that the drug is appropriate. If the group defines a drug as deviant, the individual who is motivated to seek group acceptance, will consider the use of that drug inappropriate. Many have said that we live in a drug-oriented society; therefore, those drugs that have become acceptable are more likely to be used by those desiring group acceptance.

The attitudes and behavioral relationship within a society is discussed by Maddahian, Newcomb and Bentler (1988). They state that a "behavior is determined by the intention to perform that behavior...in turn, intention is a function of attitudes toward performing the behavior and subjective norms" (p. 191). Thus, attitude is a logical predictor of behavior, when it is mediated by intention. This theory was confirmed by Bentler and Speckart (1979) in regard to drug use. They showed that "prior behavior in addition to intention served as an important predictor of future behavior" (Maddahian, et al. (1988), "intention is a function of subjective norms and attitudes, which are often in a family and social context" (p. 195). In his analysis of host and agent in the cultural environment, Westermeyer

(1987) states that societies need to recognize "the role of various institutions, such as the family, the neighborhood, the peer group, the school, the medical profession, the mass media and the judicial system, in either alleviating or exacerbating certain kinds of drug-related problems" (p. 20). He feels that patterns of use "evolve from the meanings, values, attitudes, beliefs and norms that a society assigns to any particular drug" (p. 11). In agreement is Champion and Bell (1980), who state that it is widely known that there is a close relationship between positive drug attitudes and actual drug-taking behavior. In the study by Barber and Grichting (1987), university students reported that prescription drugs were socially acceptable.

With reference to a drug-taking philosophy, Kandel (1987) states that in order for the individual to engage in socially acceptable behavior, the opportunities to engage in that behavior must be available. In American society, there are ample opportunities to engage in the use of non-prescription medications as it is estimated by the FDA that there are between 100,000 to 500,000 products available on the market. According to Kandel (1987), when children develop in an environment with drug-using role models, they may be more likely to engage in this behavior.

Concerning attitudes and social choices involved in drug use, learning theorists believe that classical

conditioning processes can explain, in part, how attitudes influence choices people make in various aspects of social behavior. With reference to operant conditioning, Meisch (1987) discusses factors controlling drug reinforced behavior. He states that these factors include "the drug itself...subject's experiential history, and response consequences" (p. 367). If the individual chooses a drug for a particular use based on his/her experiential history and the consequences from the drug are desirable, then that drug-taking behavior is reinforced.

Long and Scherl (1984) review the complexity of social causation in the use of drugs and state that "the social setting in which drugs are taken determine the meaning, function and even pharmacological effects of the drug use to users" (p. 172). They also cite evidence of specific parental influence and state that "the information regarding the influence of parents' drug using habits on children's substance use refers mainly to use and not abuse" (p. 176). Parental use of tranquilizers, barbiturates and stimulants not only specifically predicted the use of these drugs by their adolescent children of both sexes, but also that the frequency of use of each given drug in parents predicted the frequency of use of that drug by their children" (p. 172).

One theory of drug use involves a multistage social learning model. Drawing from the work of Bandura (1977), this model focuses upon processes of modeling and

reinforcement. Parents must employ "effective child rearing techniques if they are to pass their values on to their children...parents must model (through their actions and talk" (p. 229).

Another issue concerns the current attitudes and behavior in American society regarding self-care; there is increasing evidence that individuals are willing to use self-medication as a primary objective toward this goal. Vener and Krupka (1986) state that "self-medication has become an increasingly accepted component of the American health care delivery system" (p. 367). They state that because Americans have lost some trust in the medical community, they have accepted self-medication as a primary route to health. They cite the work of Knapp and Knapp (1975) who found that 60 percent of the reported illness were self-medicated.

Coons and McGhan (1988) have addressed the role of drugs in self-care and state that it has become increasingly more important that individuals take more responsibility for self-care; part of this responsibility involves appropriate self-medication. As cited in their report, survey findings show that forty million people in the United States self-medicate with OTC drugs every day. Since the 1960s and 1970s, there has been a growing public interest in self-care; evidence is established by the millions of dollars spent each year on health-related literature and products.

These authors state that this interest is truly "a significant social phenomenon" (p. 176). With respect to decisions about self-medication, Coons and McGhan believe that "when a person experiences an apparent deviation from health, he or she evaluates the symptom's meaning in terms of past experience. Therefore, as children develop, they have past experience with which to use in governing a decision about the appropriate course of action to treat a symptom of ill-health. With respect to these experiences, these authors note that, although all forms of health information can influence a decision, "it appears that an individual's experiential knowledge and the health information/advice from family and friends are the most important factors in governing a self-medication decision" (p. 178).

Regarding attitudes and use, Vener, et al. (1982) state that since World War II, there has been a steady increase in the availability of over-the-counter drugs for consumer use. Their study of non-prescription use among university students showed that during the week prior to being interviewed, 59% of the students had used an over-the-counter drug. When asked if these drugs were helpful, 85% responded in the affirmative. In addition to adult use, Vener, et al. (1982) discuss the use of over-the-counter drugs by children and state that the "relative impact of various prescription, OTC and social drugs in the early

socialization of children has not been studied adequately" (p. 413). They note that children are often conditioned to accept drugs by physicians and other health care personnel when they are given rewards for being "good" after receiving medical treatment.

Rylance, et al. (1988) report on the use of drugs by children. From a survey of 1,590 children, they found that 45% of all drugs used by children were purchased without a prescription. These authors state that, while the use of drugs by children varies widely, social influences on use may be more significant than the influence of medical practice.

Regarding education, Shands, et al. (1983) state that self-medication using non-prescription medicines merits increased attention from health care educators. They note that in contrast to illicit drugs, OTC medicines are "low in cost, widely available, advertised in all media, and fulfill legitimate needs...Society places few moral or ethnical restrictions on their use; use is often taught by example in the home" (p. 423). Because over-the-counter drugs have commonplace qualities and widespread acceptance, the possibilities for careless or misinformed use are magnified" (p. 423)

Another concern cited by Coons and McGhan (1988) is an increase in the consumer's desire to become more self-reliant; one behavior toward this goal is self-medication.

Ivan Illich (1974) sees self-medication as a basic determinant of health. He states that "dealing with our own illness and pain teaches us to cope with the uncertainties of life and maintains our sense of individuality" (Esmay and Wertheimer, 1979, p. 55).

With respect to the consumer's desire to take a larger role in health care decisions, Esmay and Wertheimer (1979) state that the following factors are involved: increased acceptance of proprietary drugs by health professionals; growing public suspicion of the medical industry; strained and ineffectual communication between physicians and parents; the current "movement toward a natural health philosophy", and rising physician visitation costs. (p. 55)

It is felt by some that inadequate consumer information concerning proprietary drugs is also a cause of misuse. Most of the available information about proprietary medicines is focused toward health professionals, which leaves the average American consumer without a source of accurate information, in lay terms, on the over-the-counter drug he/she uses. (Esmay and Wertheimer, 1979) The information on the labels of these products are not specific as to their exact composition nor are all consumers able to understand specific information concerning directions for use and warnings of caution. (Shands, et al., 1983 and Krupka and Vener, 1987).

Shands, et al. (1983) state that a contributing factor to OTC drug misuse may be that the vocabulary and structure requirements posed by existing labels do not meet with matching language skills on the part of possible consumers. They quote the Office of Education: "more than one-half of America's adults barely have skills sufficient to function in today's complex society, and that about 30 percent are incompetent at everyday consumer tasks, such as reading and following instructions on OTC drug labels" (p. 424).

Smith and Smith (1988) examined curriculum guides for kindergarten through the 12th grade and found that drug education emphasized illegal drugs. The curriculum guides made no mention of over-the-counter drugs; therefore, consumers who have had some drug education, during their school years, may still have insufficient knowledge to make appropriate decisions regarding the use of these substances.

In addition to inadequate knowledge, it has been suggested that the public's belief that over-the-counter substances are harmless may: lead to consumer misuse from excess of certain vitamins; suppress symptoms of a more serious illness requiring a physician's care; lead to dependency, either physical or psychological, and may result in interactions between over-the-counter products and prescription medications. While the consumer may believe these products are harmless, "the active ingredients in a

large number of these products are available in greater quantities only by prescription" (Esmay and Wertheimer, 1979, p. 62).

Media promotion of these products to consumers who may be gullible is a significant issue. In a 1971 study of fifth and sixth grade students, it was found that 42-53 percent of the respondents believed advertising messages shown to them, and 19-24 percent believed all but one message (Esmay and Wertheimer, 1979). While some may say that adults are not so gullible, National Analyst's, Inc. (1972), reported that 38 percent of their adult sample agreed with the following statement: "most of the things advertisements say about medicines and health advertisements must be true, or they would not be allowed to say them" (Esmay and Wertheimer, 1979, p. 64).

With respect to children, David Lewis (1971) proposes that drug advertising begins conditioning potential customers at an early age. He stresses that one of the messages children receive from OTC television commercials is that "medicines have magical qualities; they see a pill cause the instant transformation of a sufferer's face from glumness to glee" (Esmay and Wertheimer, 1979, p. 59).

Regarding the influence of television, McEwen and Hanneman (1974), found in their survey that "far more commercial messages propose an increase in the use of specified chemical agents (all licit) than warn of the

dangers involved in the abuse of licit and illicit drugs" (p. 282). These authors also found that promotion of over-the-counter drugs outweighs (in total time and frequency) any sort of public service message and generally occurs at more optimal viewing times. Their finding also revealed that promotion of these substances mostly involved an appeal emphasizing some promised psychological or social benefit resulting from the use of the drug. Vener and Krupka (1986) also report that OTC advertisements in gender-oriented magazines were either promoting appearance or stimulation. While some feel that the consumer has available knowledge to make appropriate decisions regarding proprietary drug use, Vener and Krupka (1986) propose that Caveat emptor (let the buyer beware) be rejected as a hypothesis.

Parental use of over-the-counter drugs without adequate knowledge of the physical effects of these substances or how that use may serve as a behavior model for children involves a variety of disciplines. Although parental use is the focus, the use of drugs by all adults, within the society at large and the species in general, is important to consider.

The study of human behavior involves the actions or reactions of persons under specified circumstances. With respect to human behavior and the universal use of drugs, Kroenke (1985), quotes Sir William Osler who said, "the desire to take medicine is perhaps the greatest feature which distinguishes man from animals" (p. 149). In his

article on polypharmacy, Kroenke argues that while Osler's statement may be an overstatement and that while Homo sapiens "is certainly more than a taker of pills", the mystical aura that surrounds the desire to take a "tonic" in some form may go beyond the organic facts regarding the appropriate use of that substance. (p. 149) His concern with use is that if "one is pallative, two must be purgative, and three, a potential panacea" (p. 149). The outcome, he states, is the need to eliminate discomfort from unpleasant physical and mental feelings. This encourages the proliferation of bottles that may be used toward this goal.

Sociology is the study of the origins, organizations, institutions and development of human society. From a sociological viewpoint, Montagne (1988) states that metaphors inherent in a society "influences beliefs and attitudes regarding drugs, the nature of the meaning of drug experiences, and the reasons behind drug-taking behaviors" (p. 417). A society where the metaphor "drug is remedy" is accepted will structure our experiences and behaviors in relation to drug use and the metaphor will be "instrumental in our construction of social realities regarding drug use, at either a personal or societal level" (p. 422). Montagne further states that many individuals describe their drugs as tonics, stimulants or restoratives for temporary amelioration of symptom states. Others see their drugs as

being very basic to their existence. "Their drug is food, in that without it the patient would not survive in a psychological or social sense" (p. 419). According to Montagne, "drug is solution" is a metaphor common to American society.

From a literary perspective, the presence of drug literature within a society has been discussed by Montagne (1988). He states that "drug literature can influence the use of drugs, the effects that are experienced, and even societal perceptions of drug users and drug use problems" (p. 238). He further states that this influence may be profound and "it can create an ideology of drug taking which evolves into a lifestyle or personal ethnic of use" (p. 239).

The manufacture, distribution and sale of over-the-counter products is a profitable venture and involves the disciplines of business and economics. It has been estimated that consumer expenditure in 1987 was over ten billion dollars. In addition to the lucrative nature of the market for over-the-counter products, the rising cost of physician visits and hospital costs increase the desire of the consumer to find alternative sources of health care that appear to be less expensive. If the consumer deems self-care to be less expensive than other treatment options, use of these products may offer an economically attractive option.

Chemistry is the study of structure, properties and reactions of matter. The human body is composed of chemical substances that serve a variety of structural and metabolic roles. Over-the-counter drugs are composed of chemical constituents that may enhance or inhibit normal functioning of organs and organ systems. Without appropriate knowledge of how chemical substances may interact negatively, the consumer, who uses proprietary medicines, may be risking deleterious effects to their overall physical and mental health.

Biology seeks to study essential characteristics of life processes, activities and functions. If the individual experiences mental or physical symptoms that are defined as inappropriate, use of OTC drugs may occur. With use there is the possibility that these substances may interfere with the organisms ability to maintain essential life functions. Thus, biology is an important discipline whenever the organism consumes any substance that may have an effect.

CHAPTER III

ANTICIPATED OUTCOMES AND EVALUATION INSTRUMENTS

Goals and Expectations

One goal of this practicum was designed to encourage parents to assess their use of over-the-counter drugs as a behavior model for children. Another goal was to increase parental awareness of inadequate knowledge they may possess with respect to some of these non-prescription medicines. At the conclusion of the implementation phase of this practicum, it was expected that parents would be more knowledgeable about their use of some commonly available over-the-counter drugs and be better able to understand how their attitudes, beliefs, knowledge and use of proprietary substances can influence the developing attitudes, beliefs, knowledge and behaviors of their child(ren) regarding the use of these products.

Behavioral Objectives

One objective of this practicum was to increase parental knowledge of how their drug use behavior may serve as a behavior model for their child(ren). Following a series of three activity lectures on the effects of modeling behaviors, parents were asked to write a paragraph

describing how they think modeling the use of proprietary medicines would effect their children. Parental responses were compared to a list of indicators, prepared by the writer, that outlined several important points that parents need to be cognizant of concerning how their behavior serves as a model for their children. Total time allotted for writing this paragraph was 30 minutes.

A second objective was to encourage parents to examine and clarify their knowledge of some non-prescription medications as indicated on Knowledge of Proprietary Drugs (Appendix D), constructed by the author. Although this instrument was used to document the existence of the problem at the author's local setting, a different population of parents was addressed during the implementation phase of the practicum. This evaluation instrument was given at the beginning and the end of the three activity lectures that were designed to increase awareness. The time allotted for completion of the pre-post evaluation was 30 minutes each.

Measurement of Objectives

To measure the first objective, the writer developed a list of indicators that would be important to mention concerning how children model the behavior of parents. Asking the parents to respond in writing was felt to be important in that it would require not only knowledge of the influences of modeling but require that the respondents be

able to apply the information to their own experiences. The ability to apply information in a practical way is considered to involve higher order thinking skills than is required if individual simply repeat information they have been told.

The Knowledge of Proprietary Drugs (Appendix D), developed by the author, was used for two reasons. One was to allow parents to assess their knowledge of some over-the-counter drugs. It was hoped that the assessment of knowledge would indicate to parents that they might need more information about proprietary substances before selecting them for use as a means of self-care. The second reason was to provide stimulation for discussion during the activity lectures concerning the use, safety and effectiveness of some of the over-the-counter products.

CHAPTER IV

SOLUTION STRATEGIES

Discussion and Evaluation of Solutions

A consensus of literature has developed that familial influences on developing attitudes, values and behaviors in children is paramount. It is also agreed that familial influences are only one factor that affects the developing child.

In the process of socialization, children are also exposed to a variety of models that exist outside the immediate and extended family. It has been well accepted, as previously stated, that a society that values the use of non-prescription medications as a means of self-care, will demonstrate that use regardless of the accuracy of their knowledge concerning self-medication. As the child observes the multitude of models available during the developing years, behaviors observed may be immediately imitated and reinforced. Behaviors observed may also be stored in the child's memory and integrated into a framework; this framework may be used later to guide their decisions to use self-medication as a part of self-care. If children in the society learn inappropriate ways of maintaining health, they will, in turn, become models for future generations.

Parents serve as powerful models of behavior for their children. Their attitudes and values concerning a variety of issues are reflected in their words and actions. It has been stated that children will often do what parents do rather than what they say; therefore, parents need to receive information regarding the appropriateness or inappropriateness of their use of over-the-counter drugs as a part of self-care.

Self-medication seems to be a continuing trend in American society and, if parents are to model self-medication behavior that achieves positive outcomes in the developing child, they must be made aware of the appropriate use of these products. In order to use over-the-counter products more appropriately, parents must be made aware of their own use and whether that use will serve as the model they desire for their children.

It has been suggested that educators need to take a responsible role in the education of appropriate choices with regard to self-care. One aspect of self-care is self-medication by appropriate methods that will not result in negative physical or psychological effects. Krupka and Vener (1987) state that the use of a Drug Knowledge Test can be a useful way to evaluate knowledge and provide an opportunity for inquiry and discussion that may lead to behavior change.

While there has been an increase in educational programs designed to educate parents about the use and consequences of illicit drugs, there has been less done to warn consumers about the possible risks versus benefits concerning the use of proprietary medicines. It has been stated by Vener, et al (1982) that drug education programs need to place more emphasis on the hazards associated with the use of over-the-counter drugs.

One solution that has been suggested in the literature indicates that an individual's knowledge about drugs and their effects can be increased through the dissemination and use of information. Such knowledge, however, has not been found to be totally influential in drug use behavior among children and adolescents. It has been suggested by Montagne (1988) that studies attempting to increase an individual's knowledge and thereby influence use, may have been less successful due to the source of the information presented. Montagne believes that this information needs to "come from socially approved and controlled sources" (p. 235). Therefore, it is possible that directing drug information to children and young adults may not be the most appropriate method.

Based on the demonstrated influence of families, it would seem that attempting to change parents' attitudes, beliefs and knowledge about over-the-counter drugs would indirectly serve as positive experiences for young children

who are influenced by parents during the developing years. It has been stated by Simons, Conger and Whitbeck (1988), in their Multistage Social Learning Model, that the "influence of parenting factors--direct and indirect--via their impact on adolescent values and social skills", is undeniable. (p. 306).

It has been the writer's experience that, through education, individuals and populations can change, if the techniques are appropriate for the target group. This view is supported by Rylance, et al. (1988), who state that knowledge may serve as a motivator to change.

Since it has been stated elsewhere in this report that family influences are, in large part, responsible for children's developing attitudes, values and behaviors, it seems appropriate that parents need to be aware of their use of proprietary drugs and informed as to how their use of these substances may serve as a behavior model for children.

The population of students at the college where this writer is employed as a teacher, includes parents who are currently providing models for children's behavior. Some students, who are not parents, may eventually be parents who will exert influence on their children. A portion of the students plan to become teachers of young children and, in that capacity, will serve as models for children. Therefore, this work setting was an ideal place to offer

opportunities for all students to learn the powerful influence they have or will have with respect to children's developing attitudes, values and beliefs.

Drug education programs have demonstrated some success in educating adults and children about the effects of some drugs. These programs have been directed at multilevels within the family and society; however, they have primarily focused on illicit drugs and have not dealt with the use of over-the-counter products extensively. Vener and Krupka (1986) believe that "drug education programs have not placed enough emphasis upon the hazards associated with utilization of over-the-counter products...education should be to youth and adults of all ages" (p. 379). The findings of their study of total drug use by 600 young adults demonstrate widespread use with inadequate knowledge. They state that education about deceptive advertising techniques, "bordering on quackery" must be recognized by consumers of these products and that this education should be focused on parents and teachers. (p. 379). This suggestion is in line with the practicum solution of providing educational programs that focus on attitudes, values, knowledge and use of proprietary medicines.

With respect to the target of drug education programs, Swadi and Zeitlin (1987) reviewed the success of some drug education programs to school-age children. Although these programs focused primarily on illicit drugs, the

implications of these findings can be applied to programs dealing with licit substances. One approach used in these programs involves using the media via "adverse propaganda" (p. 742). Another approach presents factual material concerning the hazards associated with drug use. A third focuses on more affective means; "developing values, stimulating thought and decision making" (p. 742). A fourth approach offers alternatives to drug use. The intent of this last approach is to provide "adolescents with non-chemical means of deriving pleasure and reward, which the drug user would get from drugs" (p. 744). From their review of these drug education approaches, the authors state that "available methods of drug education that aim at preventing drug abuse are at least ineffective, if not counter-productive" (p. 745). They further note that "it is possible that the substance of such programs is not suitable or that the methods of education are faulty" (p. 745).

Related to this practicum are two of the possible reasons for failure of these above-mentioned programs to extensively alter use of illicit drugs. One is that a program is less likely to be effective when "it concentrates on substance abuse and ignores the background against which it occurs " (p. 745). The relationship to the problem under investigation is that, if families and society can be considered background, then the aim may need to focus on changing the background within which drug use occurs. A

second reason for the ineffectiveness of the programs concerns an absence of a clear objective. As stated by Swadi and Zeitlin (1987), failure may result from the "lack of a clear and realistic objective, that is, whether they aim at tackling the attitude to, the prevalence of, or the pattern of substance abuse" (p. 745).

Description of Selected Solutions

This practicum targeted one group (parents) with objectives focused on making parents aware of their attitudes, knowledge and use of proprietary drugs, and how their behavior is related to the developing attitudes of their child(ren). While two parameters within the parenting influence were targeted, the objective of increasing parental awareness was singular. As stated by Swadi and Zeitlin, "it is not sufficient for the adolescent to be more informed about drugs to avoid regular use" (p. 745). Programs that focus on the deficiencies within the adolescent and that promise a healthy, drug-free environment, have more potential.

One solution focused on the need for parental awareness of the issues surrounding use of over-the-counter drugs. A series of three activity lectures were conducted that addressed the issue of proprietary drug use as a means of self-care. These lectures were intended to encourage students to examine and clarify their own use and knowledge

of the possible effects of these products. As stated in the literature review, consumers view self-medication as a primary route of self-care and in order to make more appropriate decisions about these products, they must be more informed. In support of this solution is Shands, et al., (1983) who state that health care educators must offer pertinent information about non-prescription medications and that education of parents is important as use of these products is often taught in the home.

During the implementation phase, the author used a pre-post test (Knowledge of Proprietary Drugs, Appendix D). The purpose was to increase parental awareness of knowledge they possess concerning a variety of over-the-counter medicines. The use of a similar evaluation instrument has been tried by Krupka and Vener (1987) who used a Drug Knowledge Test. These authors state that this can be one vehicle used in educational programs to encourage participants to assess their present level of knowledge and awareness.

A second solution was to offer students, through three activity lectures, an opportunity to assess how their drug-use behavior may serve as a model for their child(ren). During the activity lectures, participants had opportunities to discuss and ask questions about the reading materials previously disseminated. (See Appendix E). At the conclusion of these activity lectures, participants had an opportunity to express, in writing, how they think modeling

the use of over-the-counter drugs would effect their child(ren). As previously stated, children's developing attitudes, values and beliefs are profoundly influenced by parents, individually, and society as a whole.

Parental responses to the question of how they think their behavior, including over-the-counter drug use, may influence their child(ren) were compared to a list of indicators prepared by the author. Although the author did not find direct literature support for this method, it was felt that this approach would provide parental learning, both cognitively and affectively. It was believed that if parents were able to apply information to situations that they might experience, there would be evidence of higher-order learning as opposed to more basic levels of learning.

The third solution was to distribute reading materials (Appendix E) and a bibliography (Appendix F). The reading materials were designed to increase knowledge, enhance lecture material and provide stimulation for discussion. These materials were distributed prior to the activity lectures and discussed throughout the three programs. The purpose of the bibliography was to provide additional sources of information beyond that discussed in the activity lectures. This bibliography was designed for current use as well as to provide resources for future inquiry. It has been suggested by Rylance et al., (1988) that knowledge may serve as a motivation for change.

While it has been said that available information may change a person's knowledge, it may not change their behavior. It was anticipated that the program participants would considered the information valid, reliable and socially acceptable and, therefore provide an impetus for behavior change. If the results of this practicum lead to increased parental awareness of proprietary drug use as a model for children's behavior, parents will be able to address this issue with more knowledge about the negative effects that this drug-use model may have on children.

This practicum provided educational experiences intended to change parental awareness concerning their influence on the development of self-care strategies by their children. It was hoped that these experiences would improve parental ability to evaluate how their behavior and knowledge can influence the child's developing attitudes and behavior concerning proprietary medicines.

Report of Action Taken

The calendar plan for implementation outlined in the proposal was slightly modified. Due to administrative responsibilities, the author was not able to begin implementation until mid-October; her original intent was to begin October 1, 1990. After reviewing the weekly

journal kept during the implementation phase, the author discovered that, except for the previously mentioned delay, all activities were conducted in a timely manner.

It is believed that any individual, who has knowledge of proprietary drugs and the influence of modeling on children's behavior, could duplicate the solution strategies outlined in this report.

During the discussion of the results on the pretest, Knowledge of Proprietary Drugs (Appendix D), participants were encouraged to ask questions about additional non-prescription medications that were not included on the pretest. During the activity lectures, students reported some personal experiences concerning the use, safety and effectiveness of some of these products. Several students asked about some alternatives that could be employed in order to reduce or alleviate symptoms that they might otherwise treat with over-the-counter products.

At the second meeting, students were given resource material for reading and subsequent discussions. (see Appendix E). Three students provided the author with some additional sources of information; these sources were compiled and distributed to the participants. At each of the three activity lectures on proprietary drugs, students were encouraged to share their perspectives on the material provided.

During the activity lectures on the influence of modeling and children's behavior, the author discovered that participants were quick to respond verbally, when asked how children demonstrate modeling behaviors. Parents mentioned such things as modeling of language, gestures and emotions. Many parents commented that, until the author mentioned the use of over-the-counter drugs as a behavior model for children, they had not considered this behavior but stated they had considered how children may use illicit drugs that are often used by adults in the child's environment.

Throughout the activity lectures on proprietary drugs and modeling behaviors, the students seemed to be enthusiastically receiving and discussing the printed material as well as providing personal examples. Some of the participants were preschool teachers who shared their experiences concerning children asking them and other teachers to provide over-the-counter medications. An interesting response from one participant concerned ill children who came to her center with a normal temperature, after being given some analgesics by the parent with the intent of reducing the child's temperature. The participant indicated that once the medication effects subside, the staff is required to contact the parents. This situation is a reflection of parental need for day-care that can accommodate children who are sick.

CHAPTER V

RESULTS, CONCLUSIONS AND RECOMMENDATIONS

Results

As previously stated in Chapter III, Statement of General Goals, this practicum was designed to encourage parents to assess their use of over-the-counter drugs as a behavior model for children and to increase parental awareness of inadequate knowledge they may possess with respect to some non-prescription medications. It was anticipated that parents would be more knowledgeable about their use of some commonly available over-the-counter drugs and be better able to understand how their attitudes, beliefs, knowledge and use of proprietary substances can influence the developing attitudes, beliefs, knowledge and behaviors of their children regarding the use of these products.

The first objective of increasing parental knowledge of how their drug use behavior may serve as a behavior model for children was measured by comparing the participants' written responses concerning the influence of modeling to the list of indicators prepared by the author. The author's list included: language, life-style behaviors, emotions, play behaviors and social behaviors. The participants'

written responses are grouped under each of these headings; additional responses are grouped under Other. (See Appendix G). With respect to language, participants mentioned five ways that children model the language of parents. Regarding life-style behaviors, six examples were given. Concerning emotions, participants identified four examples of modeling. Surprisingly, modeling through play behaviors was mentioned only four times. The participants gave five examples of how children model social behavior. Examples of other types of modeling were eating behaviors, family traditions, educational values, religious teachings and moral behaviors

The second objective was measured by comparing the results of the pre-post test on Knowledge of Proprietary Drugs (Appendix D). Item Numbers 4, 5, 8 and 11 were designed to assess attitudes and beliefs concerning self-care, safety and the adequacy of knowledge about some proprietary drugs.

Item Number 4 asked whether a person should see a doctor before taking a nonprescription medicine. On the pretest, the majority of the respondents disagreed or were unsure (Figure 1). On the post-test, there was an increase in number of participants who disagreed (Figure 2). This increase may mean that the participants, after gaining some knowledge, felt more comfortable in their ability to choose appropriate medications as a part of self-care. Although it was anticipated that the participants, after participating

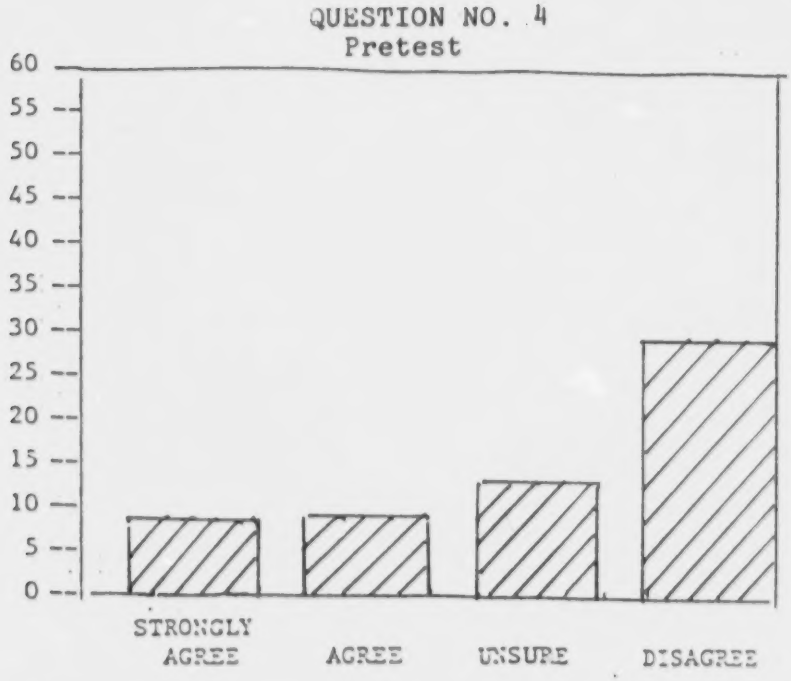


FIGURE NO. 1 NUMBER OF RESPONSES
N = 59

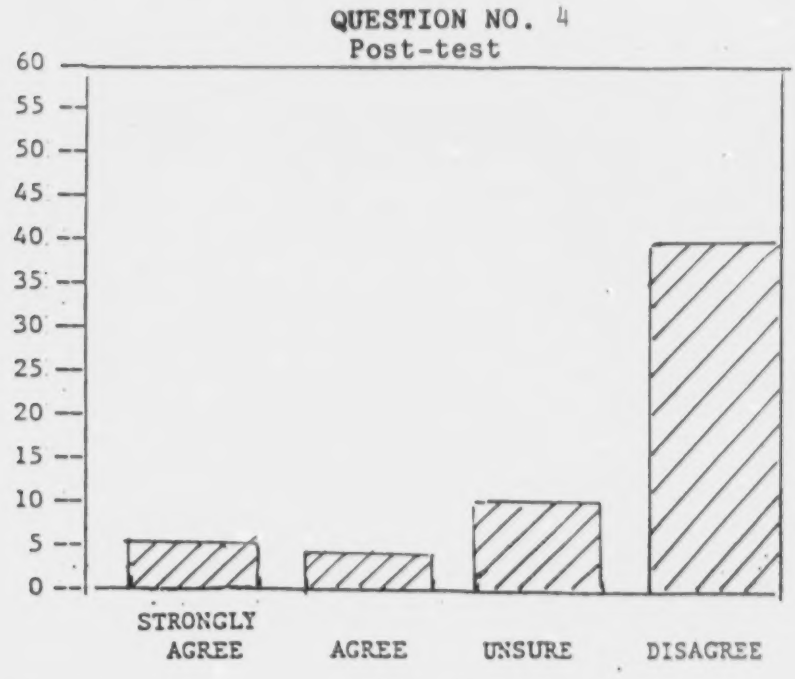


FIGURE NO. 2 NUMBER OF RESPONSES
N = 59

in the readings and discussion, might change their opinion regarding the value of seeing a physician before taking an over-the-counter drug, this did not happen. As stated previously in this report, consumers are interested in more control over their self-care needs; self-medication is a primary route. This finding would support the idea that individuals are committed to self-medication as a part of self-care.

Regarding Item Number 5, (Does the Government make sure all products are safe in any dose before they are sold?) the majority of the participants disagreed or were unsure on the pretest (Figure 3). On the post-test, the number of those who disagreed increased (Figure 4). During the activity lectures, the author presented numerous examples of products that could be extremely harmful.

Item Number 8 asked for an opinion as to whether there should be more non-prescription medications available. The pretest and post-test results showed that most participants disagreed (Figures 5 and 6). This is interesting when compared to Item Number 4. Although they did not believe in consulting a physician before using non-prescription medications, they did feel that adequate numbers of these products were available.

Item Number 11 asked the participants if they felt that most Americans were knowledgeable about the effects of non-prescription drugs. Pretest and post-test results showed

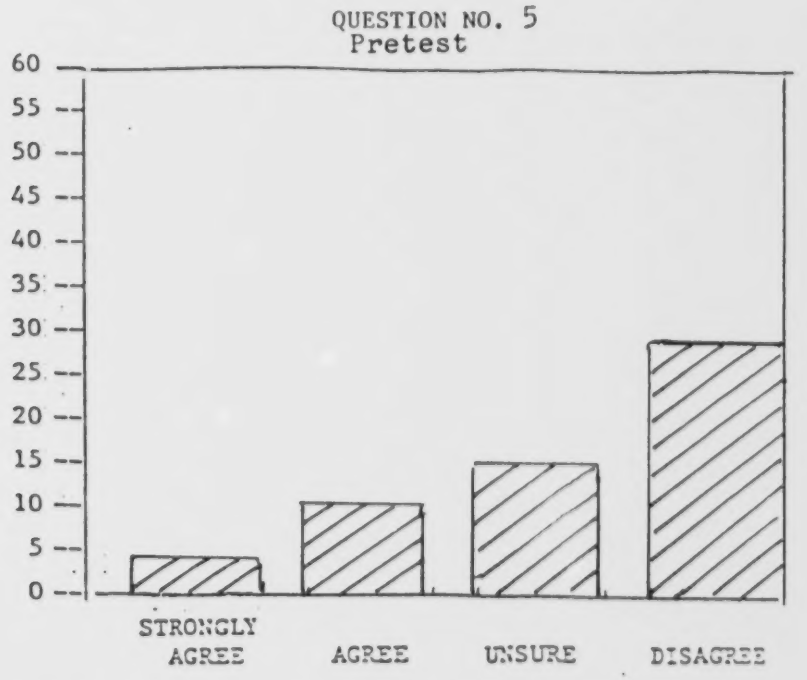


FIGURE NO. 3 NUMBER OF RESPONSES
N = 59

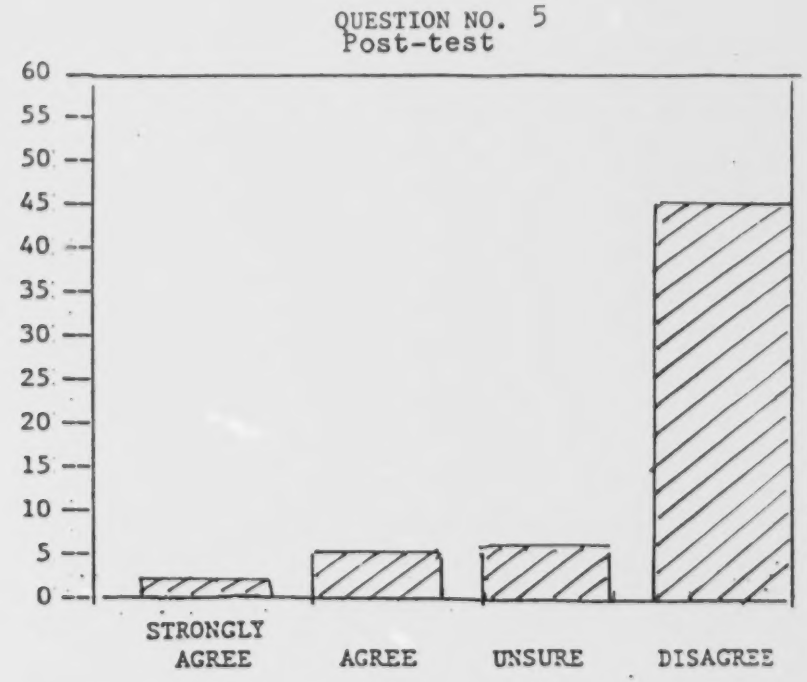


FIGURE NO. 4 NUMBER OF RESPONSES
N = 59

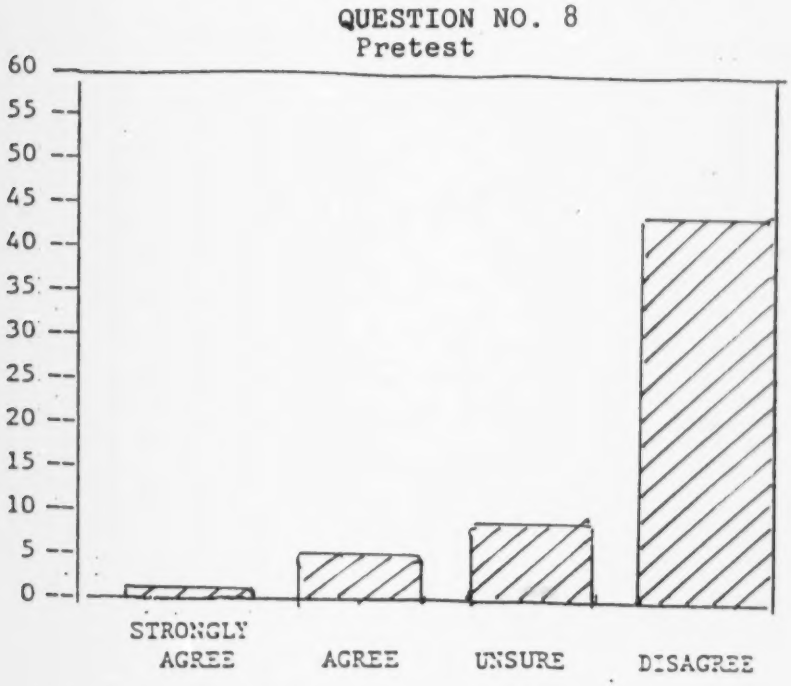


FIGURE NO. 5 NUMBER OF RESPONSES
N = 59

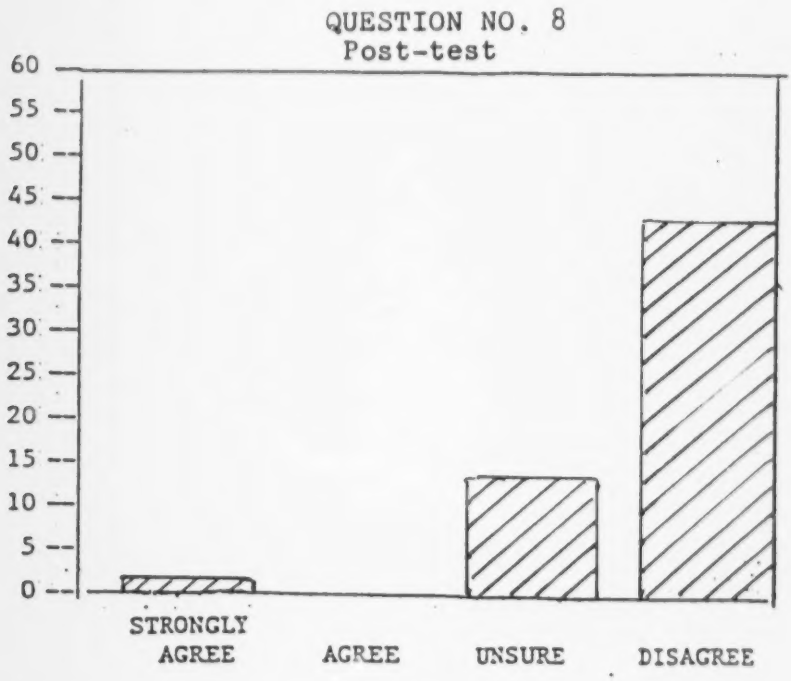


FIGURE NO. 6 NUMBER OF RESPONSES
N = 59

that the majority disagreed (Figures 7 and 8). When compared to Item Number 4, the responses to Number 11 are interesting. While the participants felt confident in using self-medication (Figures 1 and 2), they did not feel the average American was knowledgeable about these products (Figures 7 and 8). Since these participants were college students, it is possible that they consider themselves more capable of using these products for self-care; this may or may not be a valid assumption.

Item Numbers 2, 3, 6, 7, 9, 12, 13 and 15 were designed to assess knowledge held by the participants regarding vitamins, minerals, food supplements, headache medicines, herbal medicines, weight-control products, minerals and natural sources of medications. On the pretest, the majority of participants either agreed or were unsure with respect to Numbers 2, 3, 13, and 15 (Figures 9, 10, 11, and 12 respectively). The post-test results demonstrated the opposite. For these items, the majority disagreed (Figures 13, 14, 15, and 16, respectively). This result would indicate that the participants gained some knowledge with respect to these commonly used over-the-counter products.

Item Number 12 concerned the effectiveness of weight-control products. The majority of the respondents disagreed on both the pretest and post-test (Figures 17 and 18). On Item Number 6 (food supplements) the post-test results

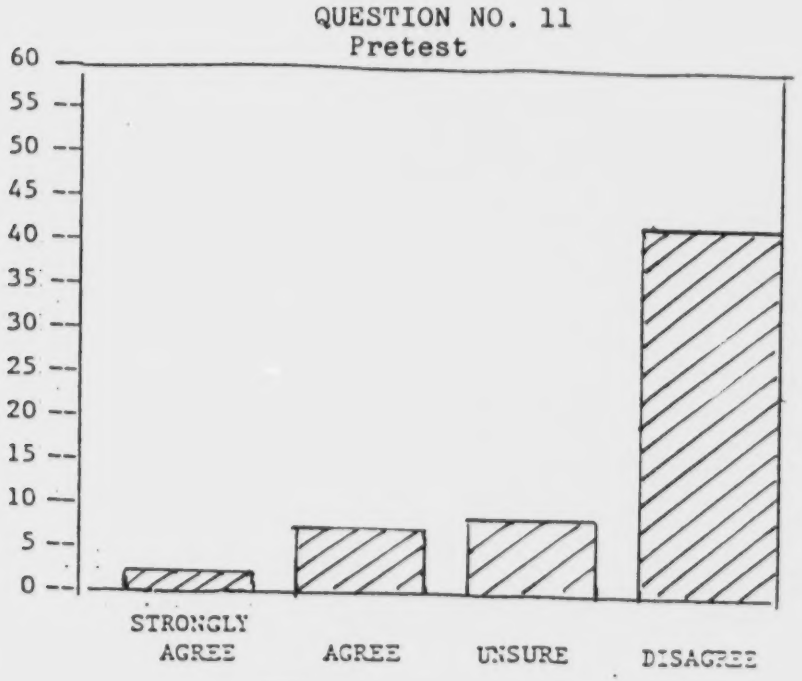


FIGURE NO. 7 NUMBER OF RESPONSES
N = 59

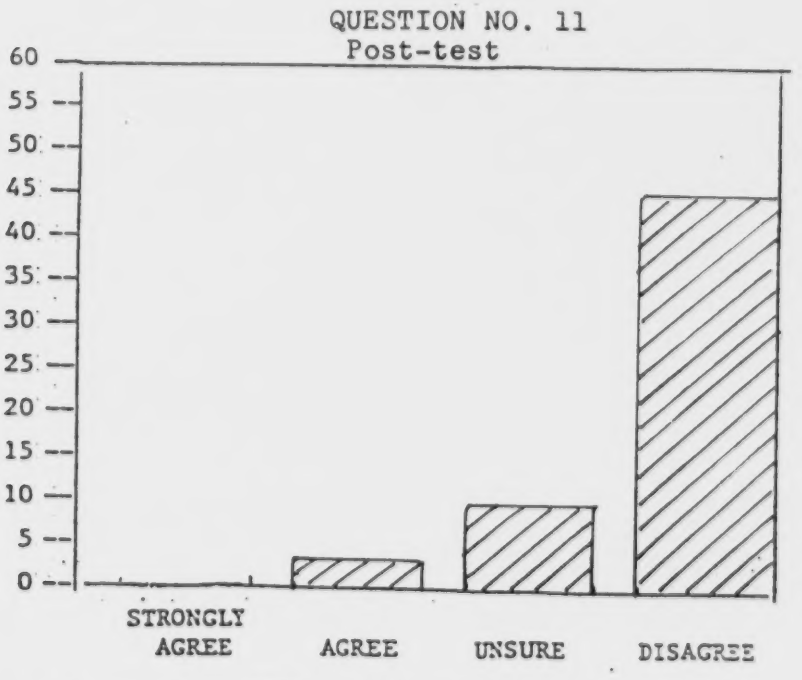


FIGURE NO. 8 NUMBER OF RESPONSES
N = 59

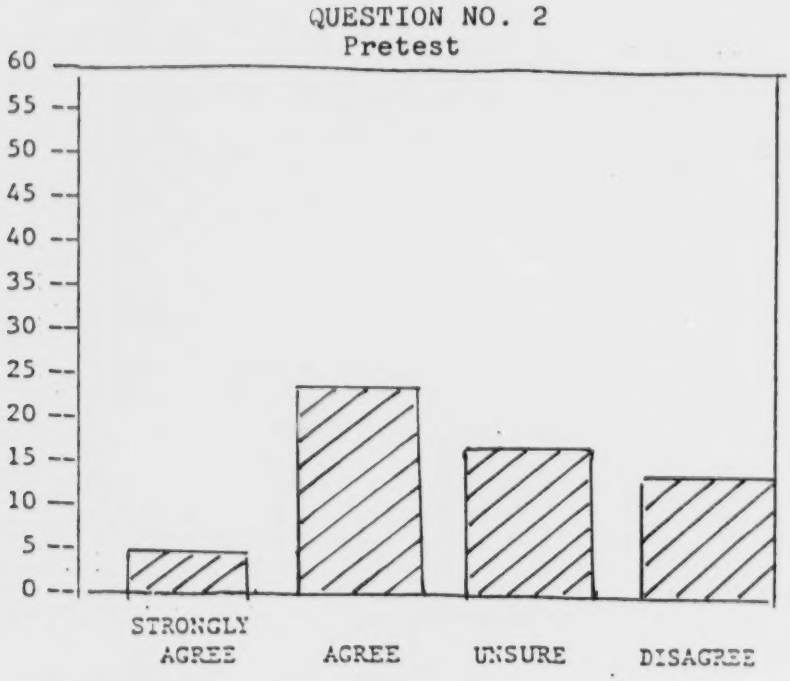
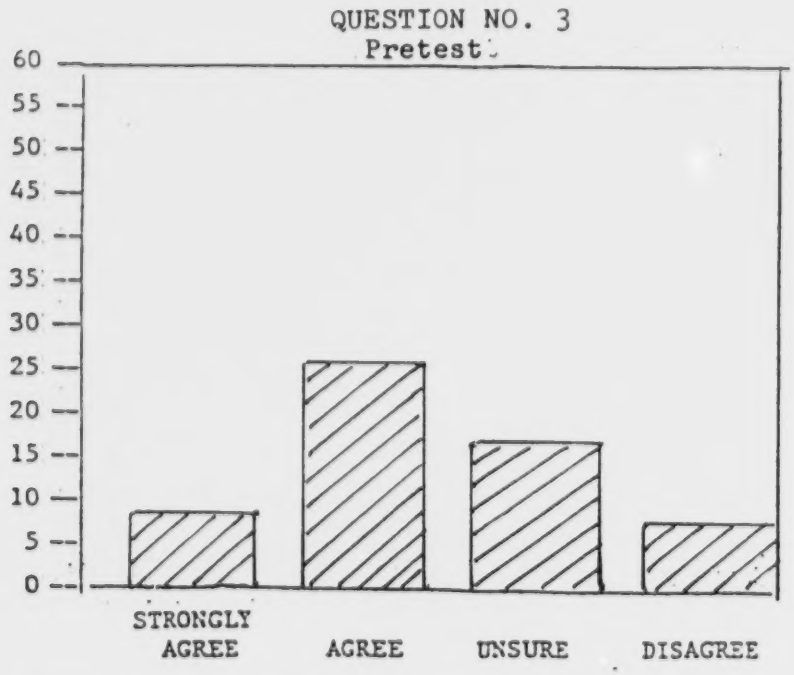


FIGURE NO. 9 NUMBER OF RESPONSES
N = 59



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N = 59

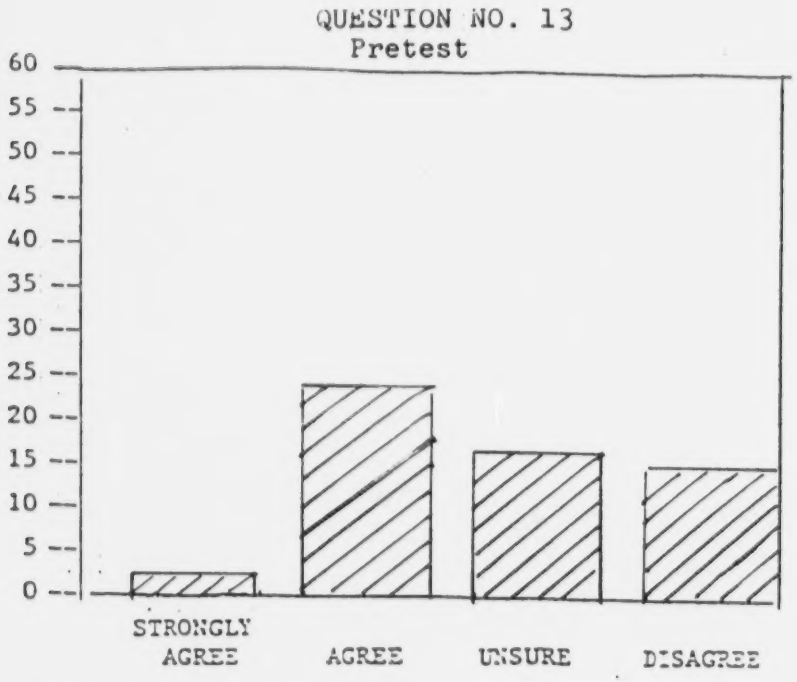
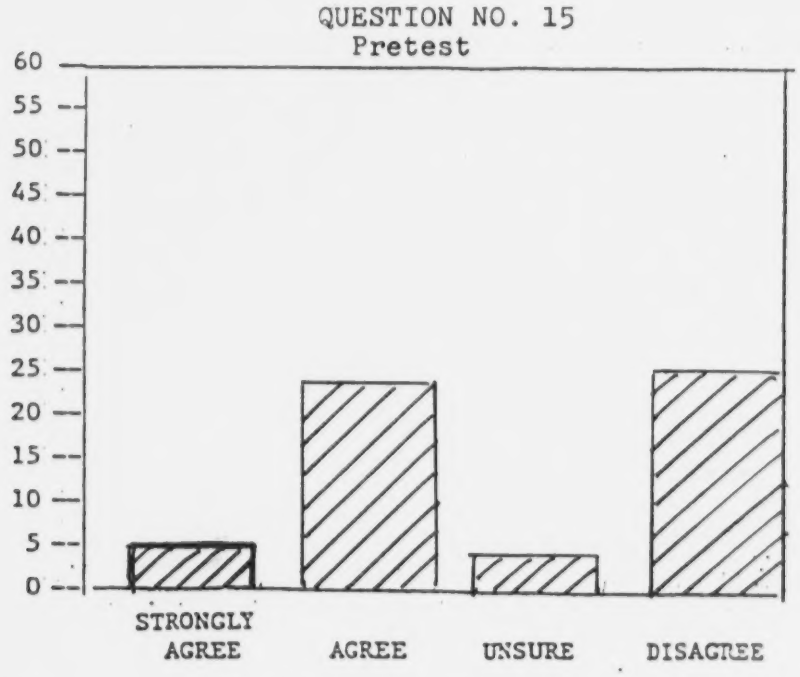


FIGURE NO. 11 ▨ NUMBER OF RESPONSES
N = 59



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N = 59

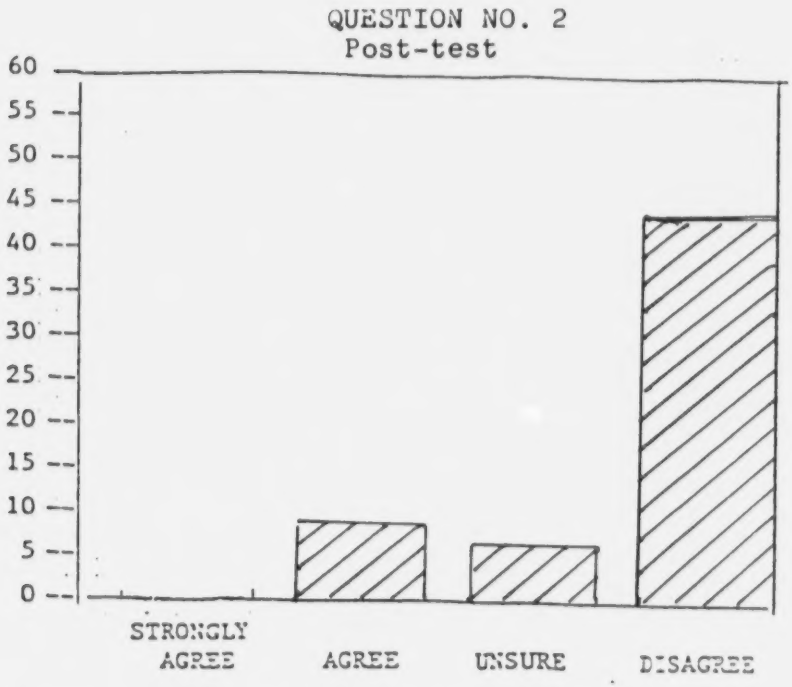
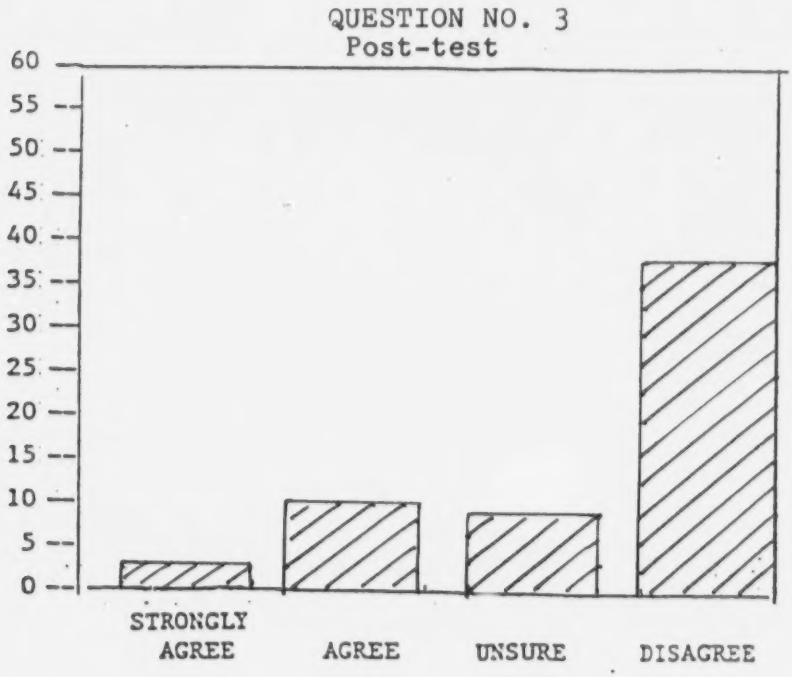


FIGURE NO. 13 ▨ NUMBER OF RESPONSES
N = 59



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N = 59

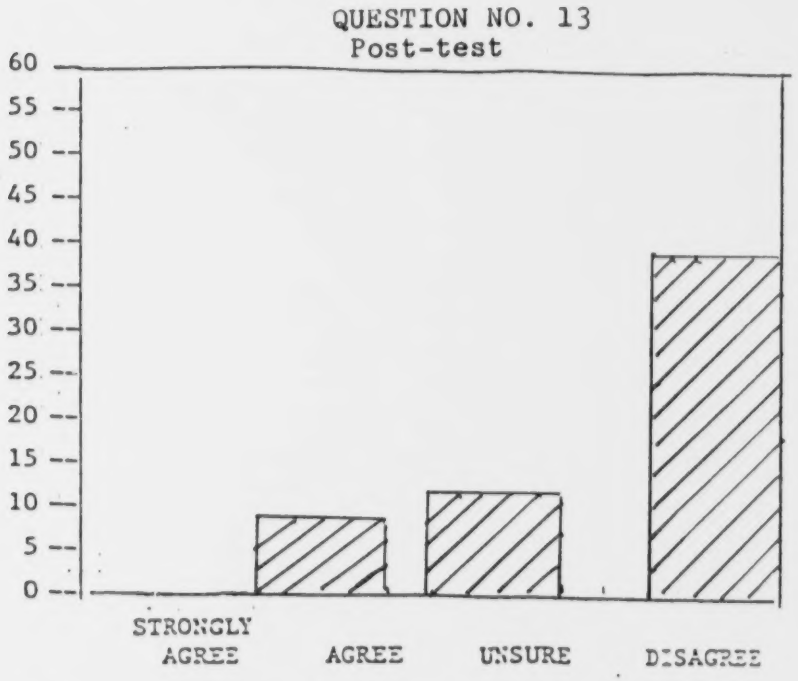

FIGURE NO. 15 NUMBER OF RESPONSES
N = 59

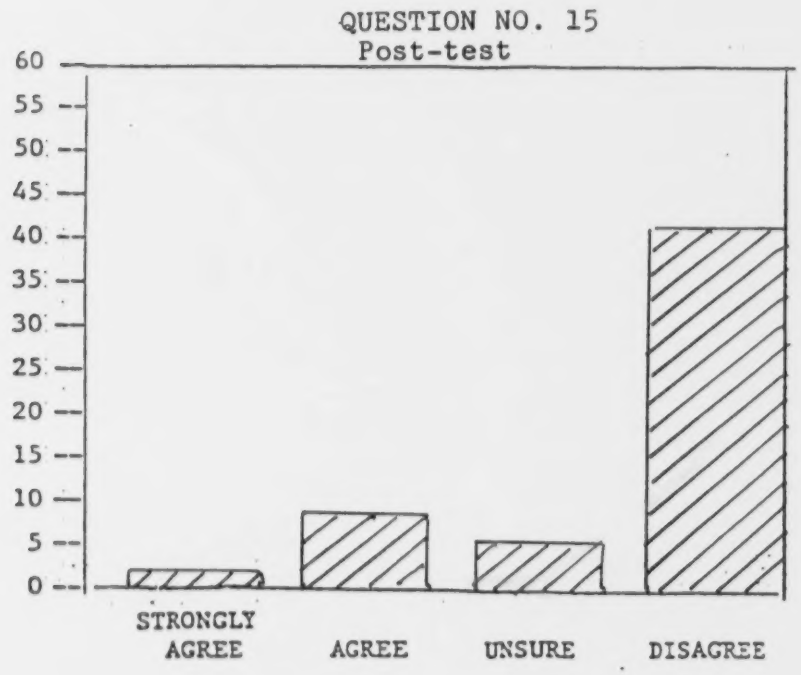

FIGURE NO. 16 NUMBER OF RESPONSES
N = 59

demonstrated more disagreement than did the pretest (Figures 19 and 20). This may be a reflection of the activity lectures which included information concerning the effectiveness of food supplements on nutritional health. Item Number 7 (frequency of headaches) favored the unsure column on the pretest (Figure 21); however, more participants strongly agreed or agreed on the post-test (Figure 22). This difference may have resulted from the information presented concerning the side effects of headache medicines. Pretest results on Item Number 9 (regarding herbal medications) showed that the participants were unsure or disagreed (Figure 23). Post-test results remained similar (Figure 24). This finding may simply mean that participants maintained the popular belief in the safety of herbal substances.

Item Numbers 1 and 10 were designed to assess the participants' knowledge of the addictive nature of some of these proprietary products as well the product's ability to help a person get well. The pretest results for Item Number 1 demonstrated that the majority of the respondents agreed or were unsure (Figure 25). On the post-test, the results of Item Number 1 were similar (Figure 26). It appears that the respondents maintained their belief that proprietary drugs cure illness rather than treat symptoms. With respect to Item Number 10, the pretest results showed more were unsure or disagreed (Figure 27). The post-test demonstrated

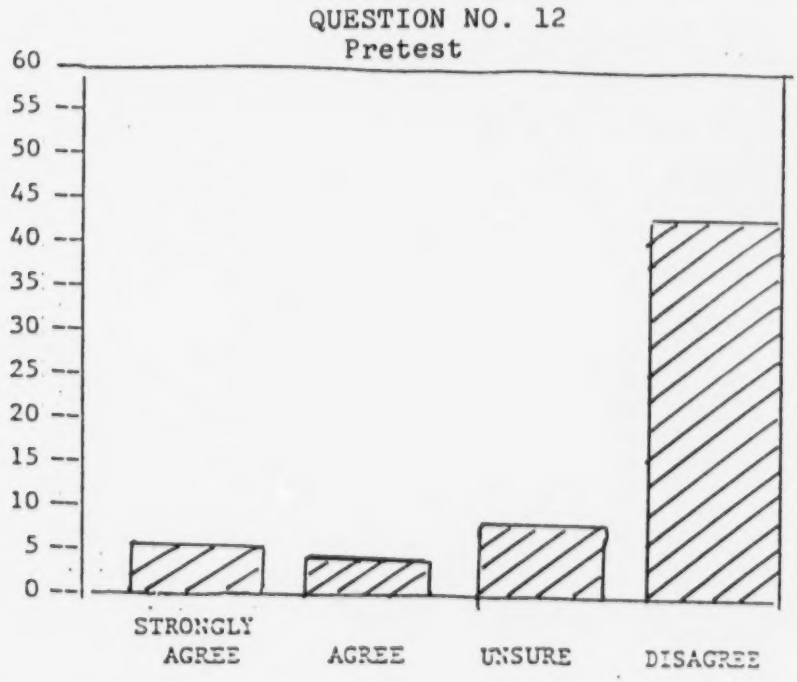

FIGURE NO. 17 ▨ NUMBER OF RESPONSES
N = 59

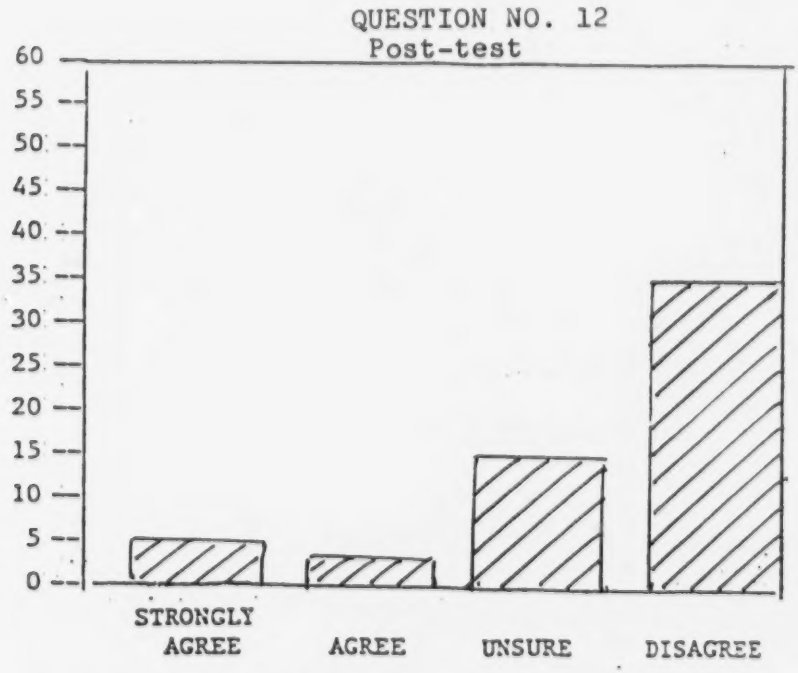

FIGURE NO. 18 ▨ NUMBER OF RESPONSES
N = 59

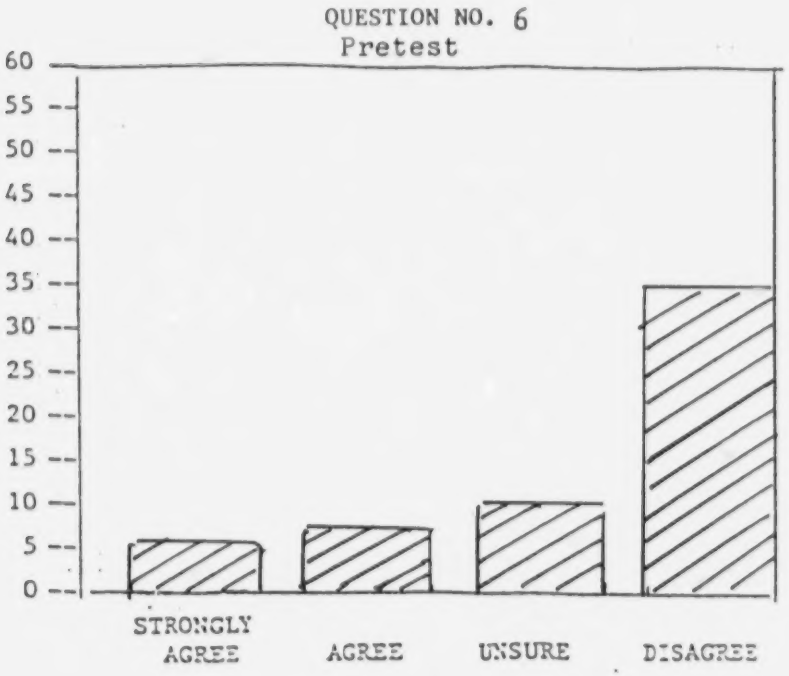

FIGURE NO. 19 NUMBER OF RESPONSES
N = 59

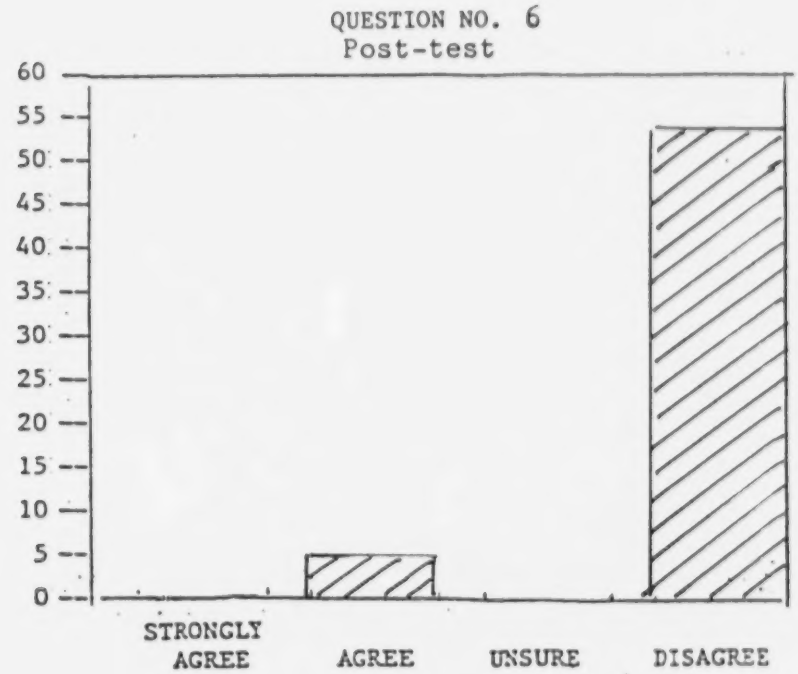

FIGURE NO. 20 NUMBER OF RESPONSES
N = 59

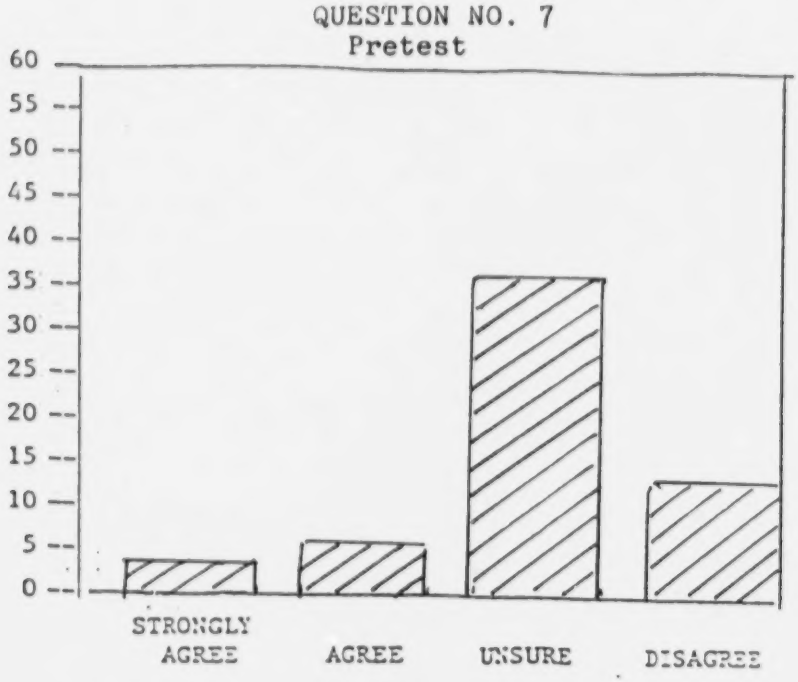

FIGURE NO. 21 ▨ NUMBER OF RESPONSES
N = 59

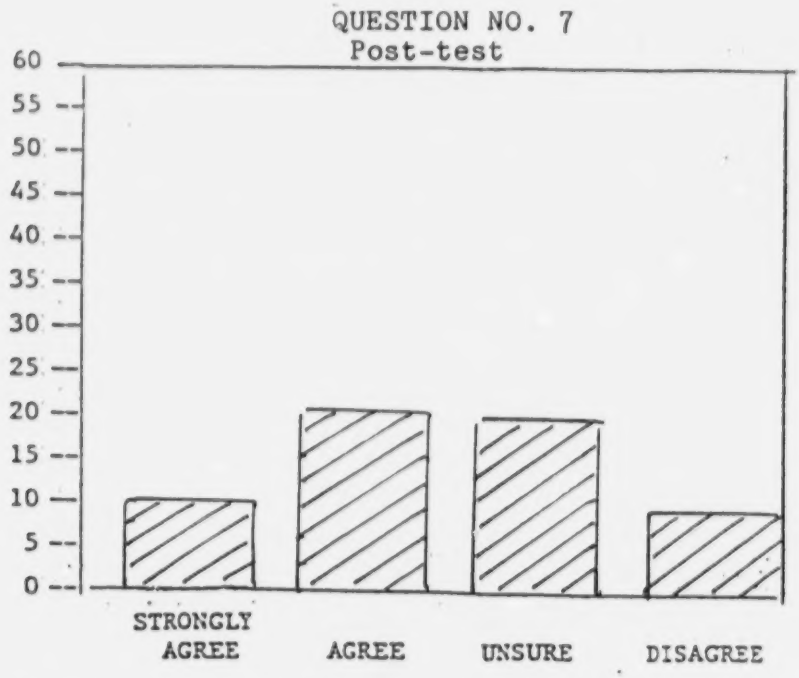

FIGURE NO. 22 ▨ NUMBER OF RESPONSES
N = 59

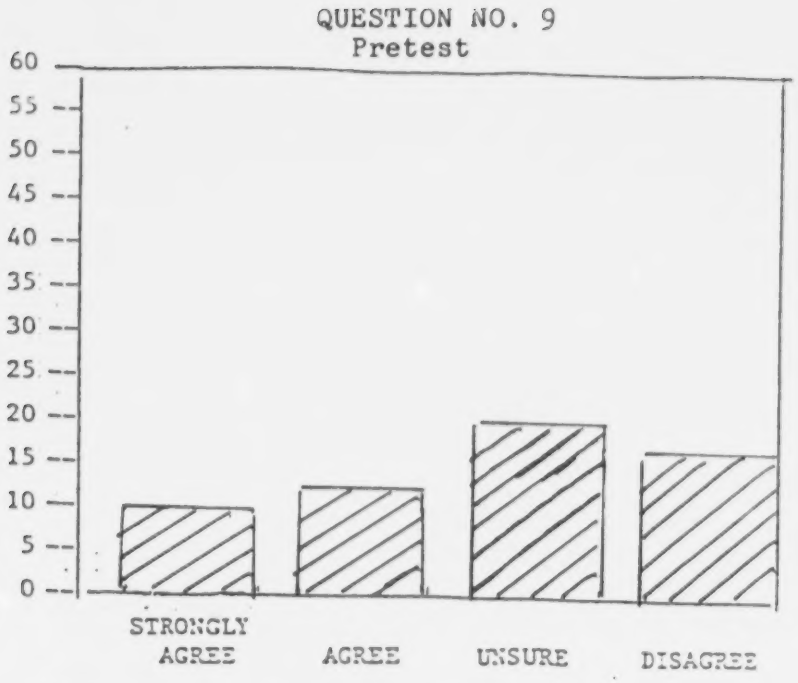

FIGURE NO. 23 NUMBER OF RESPONSES
N = 59

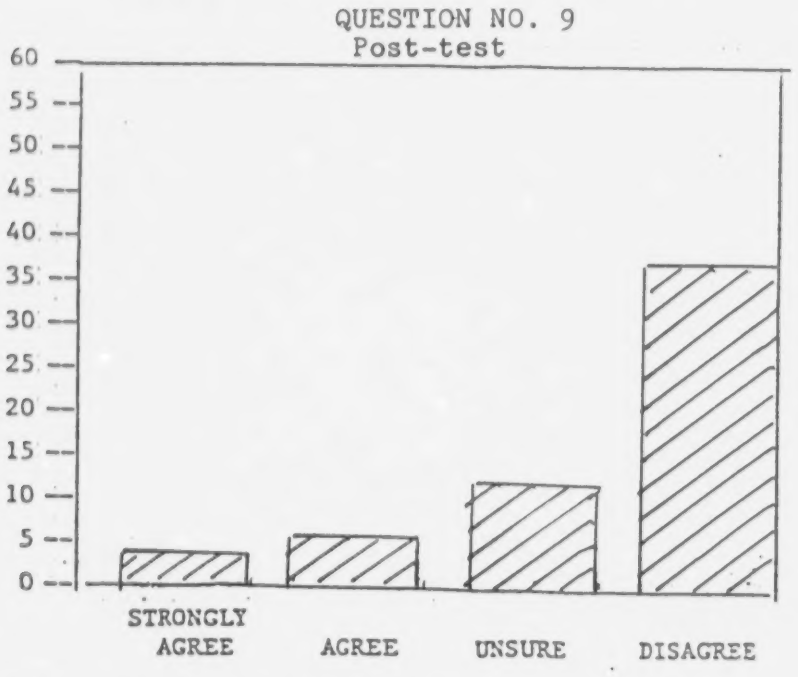

FIGURE NO. 24 NUMBER OF RESPONSES
N = 59

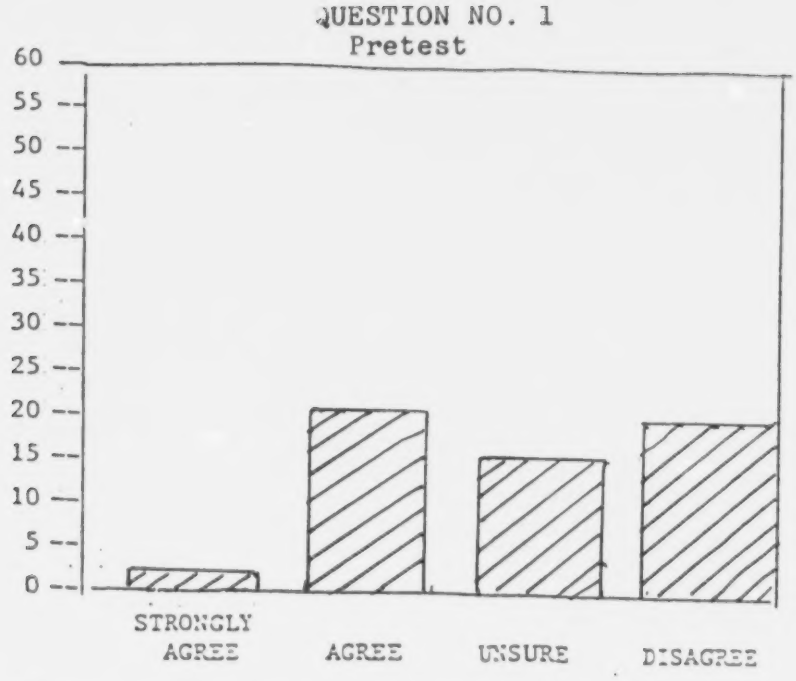

FIGURE NO. 25 NUMBER OF RESPONSES
N = 59

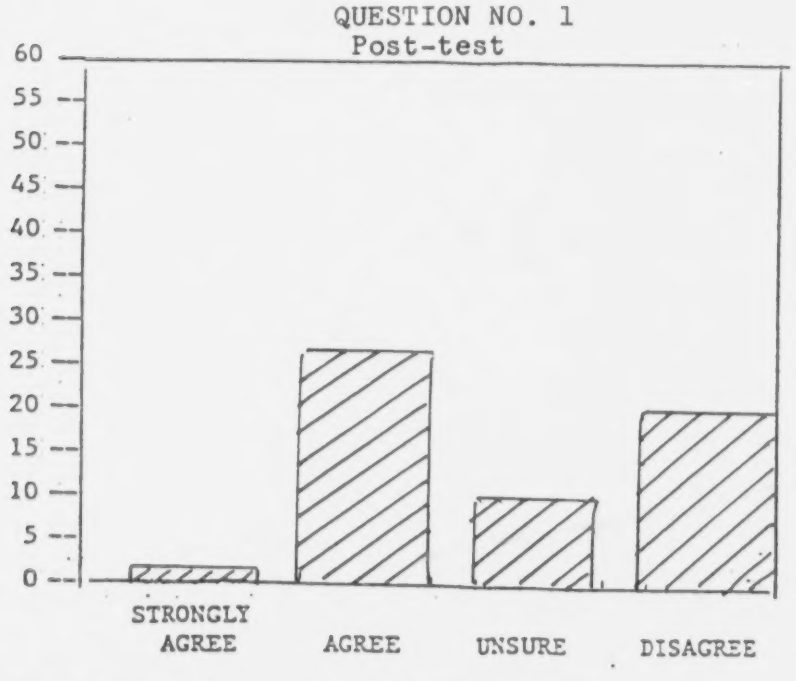

FIGURE NO. 26 NUMBER OF RESPONSES
N = 59

more disagreements (Figure 28). The activity lectures included a discussion concerning the addictive nature of some of these products; the post-test results could be a reflection of greater participant awareness.

Item Number 14 concerned whether advertising gives accurate information about a product's effects. The pretest results showed an almost equal number of responses between the strongly agree/agree and the disagree column (Figure 29). On the post-test, the majority of the participants disagreed (Figure 30). During the activity lectures, the author discussed how advertising is often misleading and that the ultimate purpose of advertising is to sell the product. As noted elsewhere in this report, consumers are often gullible concerning the real purpose of advertising.

Conclusion

A summary of the results of this practicum would indicate that the general goal of increasing parental awareness of how their behavior serves as a model for their child(ren) was successfully attained. The parental responses of modeling behaviors were indicative of behaviors that were discussed during the activity lectures. These responses were varied and described specific examples of how children model the behaviors of parents and other adults in the society. Not only did the participants mention all those listed by the writer but included some behaviors that

QUESTION NO. 10
Pretest

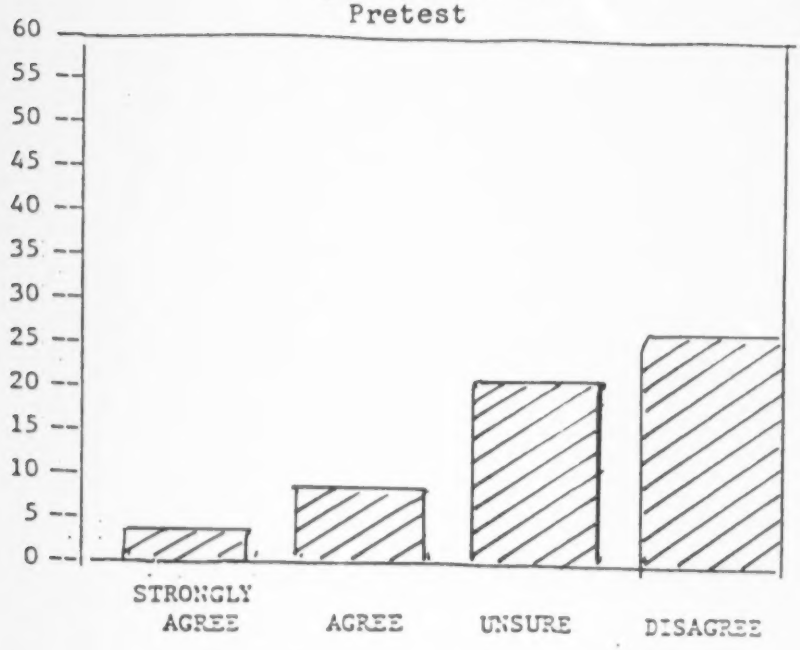

FIGURE NO. 27 NUMBER OF RESPONSES
N = 59

QUESTION NO. 10
Post-test

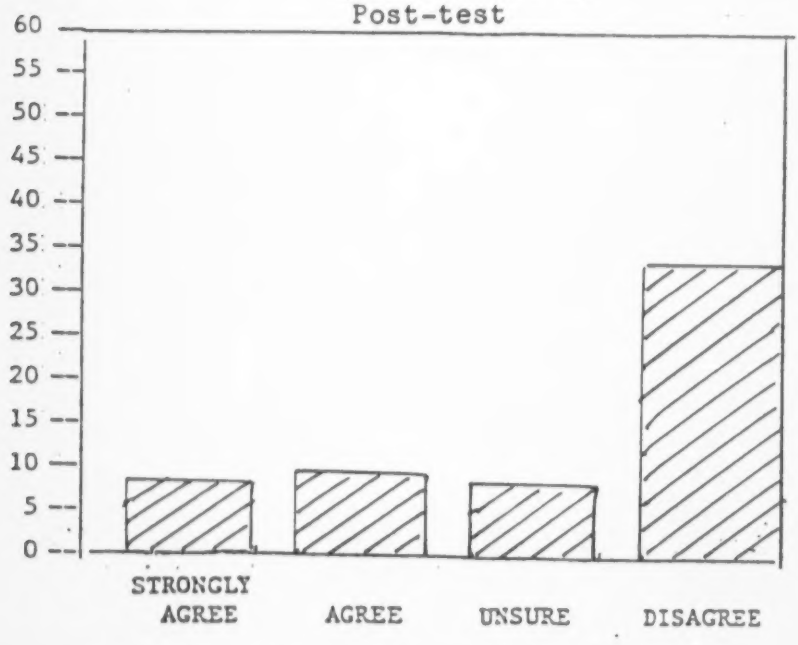

FIGURE NO. 28 NUMBER OF RESPONSES
N = 59

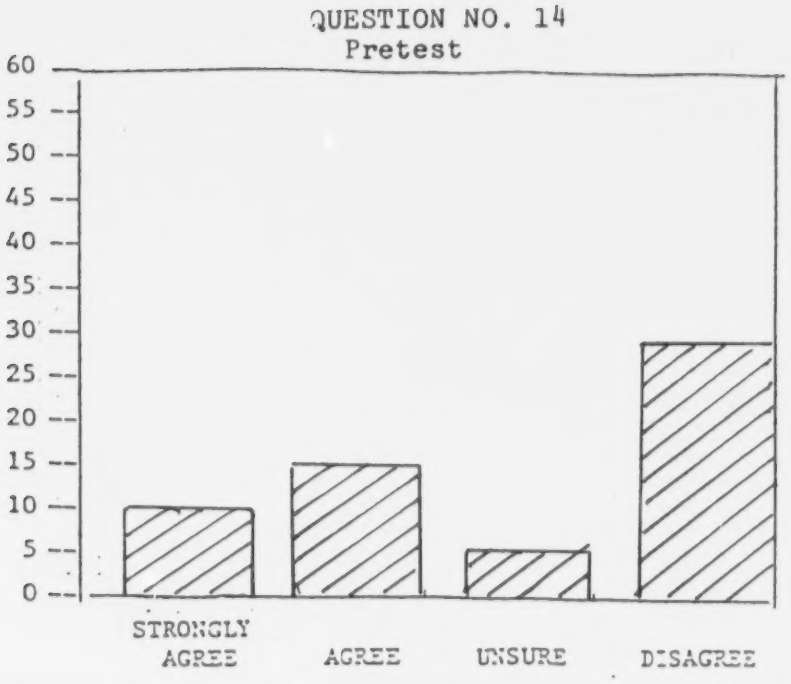

FIGURE NO. 29 ▨ NUMBER OF RESPONSES
N = 59

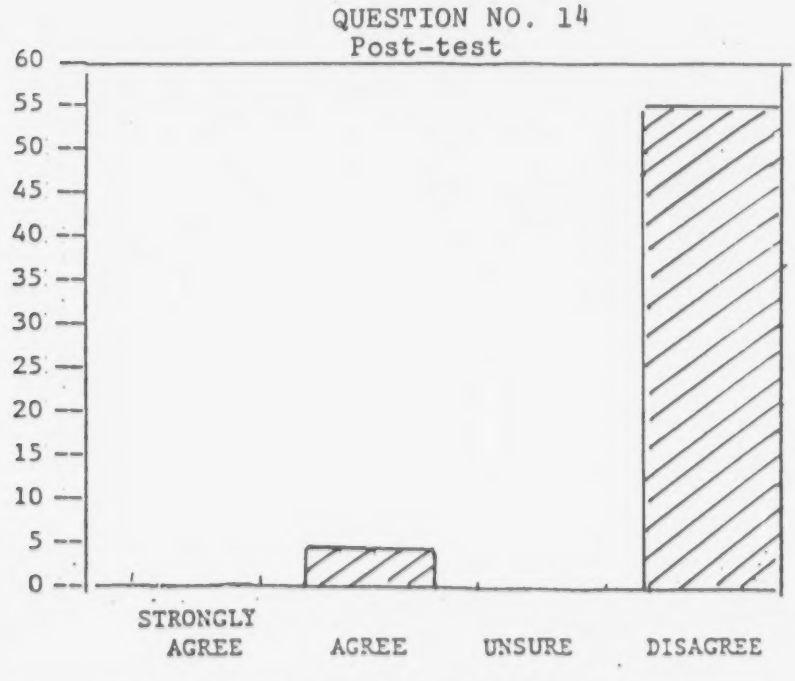

FIGURE NO. 30 ▨ NUMBER OF RESPONSES
N = 59

the writer had not considered. Verbal responses by the participants also demonstrated that modeling was an important aspect for them to consider concerning the child's development of attitudes, values and beliefs reflected in the immediate environment of the family and evidenced in the society as a whole.

The second goal of increasing parental awareness of inadequate knowledge they may possess with respect to some non-prescription medications was somewhat successful. Although some participants did not change their responses concerning the questions designed to assess use, attitudes and beliefs about some of these products, the majority answered the knowledge questions correctly on the post-test.

The finding that the participants' interest in using self-medication as a part of self-care did not change is consistent with the widely-held belief that Americans are dedicated to being in greater control of their own health maintenance. One consolation to the writer involves the hope that the participants, after the program, have improved their knowledge concerning the need for accurate information and responsible decision-making, if these products are chosen as vehicles for self-care.

Recommendations

Many participants verbally acknowledged that the three activity lectures and the handouts concerning some over-the-

counter drugs stimulated their thinking with regards to the use, safety and effectiveness of these products. Some expressed frustration that there are non-prescription products available that could actually result in health hazards and even death. Many reported that they often take these products based on the recommendation of a family member or friend and rarely report the use of these products if a physician asks: are you taking any medications?

With respect to the activity lectures on modeling, a few participants gave personal experiences concerning children asking parents or teachers to "give them something". Some parents asked how to convince other individuals in their child's life that their behavior may provide a negative model for their children. Other participants asked for effective methods to help children change current behaviors that are a reflection of modeled behaviors.

From the parental responses and interest generated by this practicum, the following observations and recommendations are made:

1. The time allotted for this topic was too brief to adequately cover the important aspects of over-the-counter drug use as a part of self-care and as a modeling influence.

2. For future programs of this nature, it would be helpful to include more information on reading labels and warnings, to discuss methods of deceptive advertising and to include methods that would be more appropriate for handling the variety of symptoms that are often treated by the use of these non-prescription drugs.

3. The discussion of over-the-counter drugs should be mandatory in all health-related or human-development-related classes.

4. The courses that deal with substance use and abuse should devote time to the discussion of over-the-counter products and their health risks.

5. Parenting classes must address the issue of modeling from both a theoretical and practical aspect.

Dissemination

During the implementation of this practicum, the writer discussed this topic with several colleagues who teach health-related courses. As was expected, these individuals expressed interest but were surprised that the writer was so convinced that the issue of over-the-counter drugs is of paramount importance to any program that deals with health, substance abuse or human development.

Two of these colleagues allowed the author to make a presentation to their classes concerning this issue. As a result of these presentations, numerous students expressed the same surprise that this would, in fact, be an issue worth addressing. In support of these responses, the

literature research indicates that the topic of drug use often excludes any mention of over-the-counter products; instead, the focus is on illicit substance use and abuse.

The writer is currently making inquiries as to local and/or national meetings that could serve as a forum for discussion of this issue. A related issue of national interest is that of substance exposed infants. The writer has attended numerous conferences that have focused on the impact of substance abuse on our nation's children. It is interesting to note that no mention was made of non-prescription medicines in terms of attitudes, values and beliefs concerning drugs. It seems important to this writer that drug education must include all substances ingested, not simply the ones that are illegal or which have received more attention. While the use of illicit substances can certainly involve more devastating results to the developing child, all aspects of drug use must be considered. Our drug education programs must be comprehensive in scope; proprietary drug use should be one component.

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APPENDIX A

MEDICATION SURVEY

MEDICATION SURVEY

This questionnaire is designed to gather information about non-prescription medications. Please take a few moments to answer the following questions.

PLEASE CHECK THE APPROPRIATE BOXES: ☐ Parent ☐ Nonparent

☐ Under Age 20 ☐ Between 20-29 ☐ Between 30-39 ☐ Over 40

WHAT IS YOUR OCCUPATION? _____

WHICH OF THE FOLLOWING DO YOU USE? (Check one or more)

Mild pain relievers

___Aspirin ___Anacin ___Motrin ___Nuprin ___Vanquish
___Bufferin ___Advil ___Datril ___Tylenol ___Excedrin
___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

Sleep aids or other sedatives

___Compoz ___Sleep-eze ___Miles-nervine ___Nyquil
___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

Cold and allergy preparations

___Coricidin ___Dristan ___Contac ___Sudafed ___Sinarest
___Co-Tylenol ___Sine-Aid ___Vit. C ___4-way cold tablets ___Alka-seltz plus
___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

Cough suppressants

___Coricidin ___Pertussin ___Robitussin ___Romilar Capsules
___Pertussin 8 hour ___Novahistine cough formula
___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

Antacids

___Maalox Plus ___Di-gel ___Gelusil ___Mylanta
___Rolaids ___Tums ___Alka-seltzer ___Milk of Magnesia
___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

Laxatives

___Ex-Lax ___Peen-a-mint ___Metamucil ___Simulax
___Fletcher's ___Carter's ___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

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Weight-control products

___Appedrine ___Prolamine ___Control ___Acutrim
___Dexatrim ___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

Nutritional supplements

___Vitamins ___Minerals ___Wheat bran ___Oat bran
___Amino Acids ___Brewer's yeast ___Iron pills ___Calcium pills
___OTHER

Do you use these ___Daily ___Once a week ___More than once a week

---

FOR THE FOLLOWING QUESTIONS, PLEASE INDICATE YOUR LEVEL OF AGREEMENT OR DISAGREEMENT BY PLACING A CHECK IN THE APPROPRIATE COLUMN.

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
1. Non-prescription medicines help a person get well	___	___	___	___	___
2. Vitamins help improve one's nutritional health	___	___	___	___	___
3. Vitamin C is good for colds	___	___	___	___	___
4. It is better to see a doctor before taking non-prescription medicines	___	___	___	___	___
5. The Government makes sure that non-prescription medicines are safe before they can be sold	___	___	___	___	___
6. Food supplements can insure good nutrition	___	___	___	___	___
7. Headache medicines can make headaches more frequent	___	___	___	___	___
8. We should have more types of non-prescription medicines	___	___	___	___	___
9. Herbal medicines are safer than medicines made in a laboratory	___	___	___	___	___
10. Non-prescription medicines are not addictive	___	___	___	___	___
11. Most Americans are knowledgeable about the effects of non-prescription medicines	___	___	___	___	___
12. Weight-control aids help people lose and maintain normal weight	___	___	___	___	___
13. Women need to take iron and calcium	___	___	___	___	___
14. Advertising generally gives truthful information about the product	___	___	___	___	___
15. It is better to take natural sources of medicines	___	___	___	___	___

APPENDIX B

FREQUENCY OF USE

FREQUENCY OF USE

CATEGORY	DAILY				ONCE PER WEEK				MORE THAN ONCE PER WEEK			
	Under 20	20-29	30-39	Over 40	Under 20	20-29	30-39	Over 40	Under 20	20-29	30-39	Over 40
1. Pain relief	12	47	31	10	52	20	21	25	36	33	48	65
2. Cold and Allergy Preparations	9	26	11	37	33	31	14	22	58	43	75	41
3. Cough suppressants	7	23	42	19	12	67	11	72	81	10	47	19
4. Antacids	21	63	51	74	0	17	0	0	79	29	49	26
5. Laxatives	0	0	15	26	22	22	52	0	0	0	46	33
6. Weight control aids	64	72	12	11	0	6	27	0	36	22	61	31
7. Nutritional supplements	74	81	38	59	0	0	0	0	26	15	52	41
8. Sleep aids and other sedatives	0	0	26	63	0	0	11	9	0	16	22	28

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APPENDIX C

DRUG KNOWLEDGE

DRUG KNOWLEDGE

QUESTION	AGE GROUP 20-29					30-39					Over 40				
	SA	A	U	D	SD	SA	A	U	D	SD	SA	A	U	D	SD
1. Non-prescription medicines help a person get well.	15	26	41	18	0	11	31	20	8	40	22	11	18	21	28
2. Vitamins help improve one's nutritional health.	42	11	7	21	19	21	33	11	0	35	9	33	20	31	7
3. Vitamin C is good for colds.	61	10	10	9	10	22	41	7	12	18	11	21	22	21	25
4. It is better to see a doctor before taking non-prescription medicines.	14	11	9	34	32	27	6	11	23	33	5	11	13	31	40
5. The Government makes sure that all non-prescription medicines are safe before they can be sold.	61	10	0	9	20	12	32	14	21	21	4	46	12	15	23
6. Food supplements can insure good health.	10	61	0	11	18	22	51	2	12	13	2	15	11	30	42
7. Headache medicines can make headaches more frequent.	0	0	12	66	22	2	5	14	34	45	0	6	35	42	17
8. We should have more types of non-prescription medicines.	100	0	0	0	0	52	10	0	12	26	64	11	0	21	4
9. Herbal medicines are safer than medicines made in a laboratory.	31	24	11	21	13	94	5	0	0	1	32	9	11	24	24
10. Non-prescription medicines are not addictive.	24	13	9	17	27	33	11	11	12	33	4	32	21	23	20
11. Most Americans are knowledgeable about the effects of non-prescription drugs.	61	11	10	9	10	33	25	22	11	9	8	14	13	52	13
12. Weight-control aids help people lose and maintain normal weight.	71	9	2	12	6	0	31	22	21	26	0	12	11	46	31
13. Women need to take iron and calcium.	82	8	0	3	7	21	42	6	15	16	62	13	11	9	5
14. Advertising generally gives truthful information about the product.	9	12	36	14	29	11	14	32	21	22	13	21	42	11	14
15. It is better to take natural sources of medicines.	100	0	0	0	0	81	2	15	0	2	31	11	18	14	26

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APPENDIX D

KNOWLEDGE OF PROPRIETARY DRUGS

KNOWLEDGE OF PROPRIETARY DRUGS

Instructions: Please respond to each statement by circling one of the numbers that corresponds to each statement.

		Participant Responses*			
		SA	A	U	D
1.	Nonprescription medicines help a person get well.	1	2	3	4
2.	Vitamins improve overall health.	1	2	3	4
3.	Vitamin C is good for colds.	1	2	3	4
4.	A person should see a doctor before taking a nonprescription medicine.	1	2	3	4
5.	The Government makes sure that all over-the-counter medicines are safe in any dose before they are sold.	1	2	3	4
6.	Food supplements insure good health.	1	2	3	4
7.	Headache medicines can make headaches more frequent.	1	2	3	4
8.	We should have more types of nonprescription medicines.	1	2	3	4
9.	Herbal medicines are safer than medicines made in a laboratory.	1	2	3	4
10.	Nonprescription medicines are not addictive.	1	2	3	4
11.	Most Americans are knowledgeable about the effects of non-prescription drugs.	1	2	3	4
12.	Weight-control products help people lose and maintain normal weight.	1	2	3	4
13.	Women need to take iron and calcium from supplements.	1	2	3	4
14.	Advertising generally gives accurate information about the product's effects.	1	2	3	4
15.	It is better to take natural sources of medicines.	1	2	3	4

Comments:

* SA-Strongly Agree, A-Agree, U-Unsure, D-Disagree

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APPENDIX E

ARTICLES FOR DISCUSSION

Articles for Discussion

Barrett, Stephen. (1989). Claims and cautions: megavitamin therapy. American Council on Science and Health's Priorities (Spring).

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APPENDIX F

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Take two aspirin? (1981). An FDA Consumer Memo. (HHS Publication No. 81-3117, 1)

Taylor, Flora. (1980-81). Aspirin: America's favorite drug. FDA Consumer. (HEW Publication No. 78-3060, 4)

The new diet pills. (1982) Consumer Reports 47(1), 15.

Weight control drug products. (1982). FDA Consumer, 27.

What's in those drugs used for coughs and colds? (1982) For Your Good Health, 4.

APPENDIX G

PARENTAL RESPONSES

PARTICIPANT'S RESPONSES

Language

1. Singing songs from television commercials
2. Greeting styles
3. Profanity
4. Slang
5. Repeating multi-syllable words without understanding of appropriate use

Life style behaviors

1. Eating habits
2. Smoking
3. Drinking
4. Parenting styles imitated with younger siblings and/or inanimate objects
5. Exercise
6. Reading

Emotions

1. Hostility toward parents, siblings and peers
2. Aggression toward siblings and peers
3. Empathy and altruism
4. Fears

Play behaviors

1. Tone of voice
2. Punishing inanimate objects
3. Nurturing responses to inanimate objects
4. Role playing

Social behaviors

1. Arguing with peers
2. Helping parents with younger siblings
3. Sharing and other cooperative behaviors
4. Friendliness
5. Competition

Other

1. Pretending to smoke and/or drink
2. Biting
3. Using remote control to repeatedly change channels
4. Procrastination
5. Asking for toys or food seen on television

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